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Research Report 1239

LEVEL III

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# TANK PLATOON TRAINING PROGRAM OUTLINE FOR USAREUR UNITS

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Research Institute for the Behavioral and Social Sciences

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exercised; and (3) suggested training methods for the operational tasks, utilizing non-fire dry runs, subcaliber fire and scaled ranges, simulated fire and maneuver, and terrain boards/sand tables. The training program outline is designed specifically for use with the M60A1 tank system.

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**Research Report 1239**

# **TANK PLATOON TRAINING PROGRAM OUTLINE FOR USAREUR UNITS**

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Training for Armor Units

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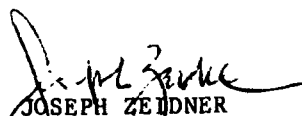
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## FOREWORD

This report presents a training program outline for preparing tank platoons for performing to standards on the Table IX Tank Platoon Battle Run, for use by tank platoons at Local Training Areas (LTAs) in USAREUR. The program extends the methodology previously developed and validated for tank crew gunnery training for Table VIII. This phase of the longer-range R&D effort describes procedures for exercising all of the functional tasks of the Platoon Battle Run, and offers suggestions for evaluating performance on the exercises. Empirical validation of the training program outline will be the objective of the next phase of the effort. The training methods identified are all relatively low-cost methods generally available at LTAs in USAREUR (US Army, Europe).

The work reported here was performed at the Heidelberg Office of the Human Resources Research Organization (HumRRO), under Contract No. MDA903-78-C-2042 with the US Army Research Institute for the Behavioral and Social Sciences (ARI). The research was monitored technically by personnel of the ARI Field Unit in USAREUR as part of Army Project 2Q163743A773 and was responsive to requirements of the 7th Army Training Command, USAREUR.

Special appreciation is expressed to SFC Robert Francis and SFC Robert Mayle of the Armor Operations Section, Grafenwoehr Major Training Area for their cooperation and for the technical inputs they provided relating to platoon tank gunnery training requirements.

  
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## TANK PLATOON TRAINING PROGRAM OUTLINE FOR USAREUR UNITS

### BRIEF

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#### Requirement:

To develop a tank platoon training program outline for use at home stations by USAREUR armor units. To provide guidance for the development of platoon level skills and knowledges required to meet the performance standards of the Table IX Platoon Qualification Course.

#### Procedure:

A prototype tank crew gunnery training program was designed and implemented in a USAREUR armor battalion. Minor modifications were made to the program on the basis of data collected during the implementation and the results of live fire exercises in which the test battalion and a comparison battalion later engaged.

Following tryout of the crew program, a task analysis of the performance requirements for the Platoon Qualification Course was conducted. Training objectives were developed to meet the performance requirements of the platoon training program, and a tank platoon training program was developed on the basis of these training objectives.

#### Utilization:

The program is designed for use by USAREUR armor units at their local training areas. It is limited to the performances required to meet the standards of the platoon qualification course as currently designed by the 7th Army Training Command at Grafenwoehr, and to the M60A1 tank system.



# TANK PLATOON TRAINING PROGRAM OUTLINE FOR USAREUR UNITS

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# TANK PLATOON TRAINING PROGRAM OUTLINE FOR USAREUR UNITS

## INTRODUCTION

### BACKGROUND

As part of their training readiness evaluation, all armor units in USAREUR are required to demonstrate their tank gunnery proficiency on an annual or semi-annual basis. Gunnery proficiency is evaluated on the basis of scores achieved in live fire tank gunnery qualification exercises. These exercises require a tank crew or platoon to acquire, engage, and neutralize a certain number of main gun and/or machine gun targets within a specified time limit. Tank gunnery qualification Table VIII comprises the crew qualification exercises, while gunnery Table IX contains the platoon qualification exercises.

In USAREUR the tank gunnery qualification tables are conducted at Major Training Areas (MTA) which have the terrain and resources required to support tank live fire exercises. Armor units typically spend approximately 15 days at the MTA, twice a year, during which time they perform qualification firing and also train on related aspects of their tank gunnery training program. The time available at MTAs is clearly not sufficient to develop and maintain tank gunnery proficiency on a continuous basis. In addition neither the training funds nor training land exist in USAREUR to increase the frequency of live fire opportunities at MTAs. As a result the major portion of tank gunnery training has to be conducted at home station or Local Training Areas (LTA) which, for the most part, have very limited terrain and other training resources.

Over the last two years the Army Research Institute Field Unit in Heidelberg has been engaged in a research effort to develop a simulation based tank gunnery training program which will meet the need for development and sustainment of gunnery proficiency at the home station. The design objectives of this program are:

1. To develop the skills required for tank gunnery qualification and to sustain gunnery proficiency between qualification periods.
2. To conduct training primarily at home station or local training areas.
3. To base the program on concepts of performance oriented training in which performance objectives specify the tasks which have to be learned and the standards which have to be achieved.

To date, the research has resulted in the design of a prototype tank crew gunnery training program<sup>1</sup> which focused on the skills required for crew

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<sup>1</sup>Miller, Elmo E., "Tank Crew Training Program Outlined for USAREUR Units," Technical Report TR 77-A15, U.S. Army Research Institute, 1977.

level gunnery qualification. This program has been implemented and evaluated in a USAREUR battalion with limited training resources.<sup>2</sup> The results showed that the program required only minor modifications during implementation and could be conducted entirely at home station using available resources. Live fire gunnery results on a modified crew gunnery Table VI showed that the crews trained exclusively on the prototype program performed as well as comparison crews who were able to train using a conventional Tank Crew Qualification Course (TCQC) and a mini-tank range.

Following the tryout of the crew gunnery program the focus of the research shifted to platoon level gunnery for the purpose of developing a platoon training program which would build on the crew program. As a first step a systematic task analysis of the performance requirements for the Platoon Qualification Course (Table IX) at Grafenwoehr was conducted.<sup>3</sup> The skills and knowledges required for effective leader and crew performance were identified and analyzed to identify those tasks which are unique to platoon level performance. Training objectives were then developed to meet the performance requirements of the qualification course and to serve as the basis of the platoon training program.

#### PURPOSE AND SCOPE

This paper presents the outline for a tank platoon training program for USAREUR armor units. The purpose of the program is to build on crew level gunnery skills and develop the platoon level skills and knowledges required to meet the performance standards of the Table IX Platoon Qualification Course. The program is designed to be conducted entirely at home station and can be used to both develop and sustain platoon gunnery proficiency on a continuous basis. Training program components consist of performance objectives which specify the tasks that have to be learned, the conditions for task performance, and the standards which have to be met.

The platoon training program is limited to the performances required to meet the standards of the platoon qualification course as currently designed by the 7th Army Training Command (7th ATC) at Grafenwoehr. Since the platoon program builds on the previously developed crew program, individual tank crew gunnery skills are addressed only to the extent that they have to be modified or expanded to meet platoon level performance requirements. It is assumed that prior to platoon level training, tank crews will have acquired the individual and crew level skills that are prerequisite for platoon level performance. Finally, the program in its present form is limited to the performance associated with the M60A1 tank system.

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<sup>2</sup> Kress, Gary and McGuire, Wendy J., "Implementation and Evaluation of the Tank Crew Training Program for USAREUR Units," Technical Report, Human Resources Research Organization, 1979.

<sup>3</sup> Kress, Gary and McGuire, Wendy J., "Analysis of Performance Requirements for USAREUR Tank Table IX: Platoon Battle Run" Interim Report, Human Resources Research Organization, 1979.

The remainder of this report is devoted to the platoon training program. The sections include (a) a discussion of the relationship between the training program and platoon gunnery qualification requirements, (b) a general description of the program, (c) the training approach, and (d) the training components themselves.

## THE PLATOON TRAINING PROGRAM

### PLATOON GUNNERY QUALIFICATION REQUIREMENTS

The tank platoon gunnery training program was specifically designed to train tank platoons on the performance requirements for the USAREUR Table IX Platoon Qualification Course. Performance requirements for the course are based on the evaluation exercises and standards which comprise Table IX. The current approach to platoon gunnery evaluation is to move away from a rigid set of rules to govern Table IX qualification requirements. Previously, USAREUR Reg. 305-704 prescribed the tasks, scenarios, engagements, and standards for all Table IX qualifications. All units qualifying at Grafenwoehr were required to follow this prescription. Under the current policy, each unit is responsible for developing the specific tasks, conditions, and standards it will use on the platoon battle run. The unit also develops the tactical scenario and engagements for the course, and the ARTEP training and evaluation outlines (T&EO) which specify all other mission requirements not included in the battle run itself.

The result of this policy has been to shift the major responsibility for platoon training and evaluation to the training managers in individual armor units. Unit trainers now have considerable latitude in developing platoon scenarios to fit available terrain and unit General Defensive Plans (GDP), and they can also incorporate any number of ARTEP subjective evaluations into their training and evaluation outlines.

The 7th ATC has developed a general set of conditions and standards which set the parameters for the platoon battle run and specify general qualification requirements. However, within these parameters, participating units can develop the specific missions, scenarios, engagements, and ARTEP evaluations which meet their unit training and readiness needs and which will provide the basis for their qualification evaluation. Thus the specific content of Table IX may be different for various armor units which conduct platoon qualification. However, all platoons will have to incorporate the general requirements, specified by the 7th ATC, into their Table IX exercises and evaluations.

In developing the platoon gunnery training program two guidelines were followed to insure that the program would be generally applicable to various armor units. The guidelines specified that: (a) the program should include training elements which reflect the general requirements of the qualification course; and (b) it should be flexible enough to incorporate the training and evaluation requirements specified by local unit commanders.

## TRAINING PROGRAM DESCRIPTION

The tank platoon training program is simulation based and can be conducted entirely at home station or local training areas. Program elements are stated in terms of training objectives which specify the tasks that have to be learned and the standards which have to be achieved. The training objectives can be used for both acquiring new skills and also diagnosing current skill proficiency levels.

Two types of task categories are contained in the training program. One category, labeled as functional tasks, addresses the basic or fundamental skills and knowledge required by the platoon leader, tank commanders, and crews to conduct any platoon level tactical operation. For example, preparing and issuing an operations order is a functional task which is basic to any tactical operation. The acquisition of these skills is necessary for qualification on the platoon battle run but the skills themselves are not restricted to Table IX performance. Rather, they are general platoon level performance requirements that are applicable to a variety of tactical operations. The second task category focuses on the specific operational tasks required for Table IX qualification. These tasks consist of target engagement exercises developed on the basis of the general conditions and standards contained in the 7th ATC Table IX Training and Evaluation Outline. In the operational tasks a platoon is presented with tactical problems (e.g., engage a threat tank company) that require them to move, shoot, and communicate in a coordinated manner. Operational tasks are the application of functional skills in a tactical context.

Training on the functional tasks should apply similarly to all USAREUR units which are required to qualify on the Grafenwoehr Table IX course. Training on operational tasks, in terms of the specific missions and engagements used, may vary from unit to unit. Since each unit is responsible for developing the specific missions, scenarios, and engagements which will be used in their qualification effort these specific operational requirements should also be reflected in their training program. Consequently, the portion of the training program devoted to operational tasks is preceded by a section which explains how to develop operational tasks in terms of training objectives. Thus a unit can train on the operational tasks contained in the program or they can use the guidelines to develop new tasks which reflect their particular mission requirements.

The program contains suggested training methods and procedures for all of the tasks. In addition, three specific simulation training methods are described which can be used to train on particular types of functional and operational tasks. Appendix B contains a detailed description for the design and development of one of these suggested methods.

## TRAINING APPROACH

The following section contains the training program components. Each component consists of a training objective which specifies the task to be

learned, the conditions of performance, and the evaluation standard. In general, certain functional tasks should be mastered prior to training on operational tasks. For example, a platoon leader should learn the skills and knowledges necessary for developing a platoon defensive plan and issuing an operations order (OPORD) before he trains on an operational task requiring the engagement of threat targets from a defensive position. In addition, some functional tasks may also contain elements which are tasks in themselves, e.g., to develop a platoon fire plan the tank commanders and platoon leaders need to prepare range cards. Whenever a training objective contains a prerequisite skill or knowledge, the appropriate prerequisite tasks are indicated.

Each of the training objectives can be used as a training module with no particular sequencing required other than the guidelines mentioned above. Unit trainers (company commanders, master gunners, S-3) should be responsible for administering the training in terms of providing resources and evaluating and diagnosing training results. The latter functions are especially important. Many of the functional tasks require the acquisition of knowledges on the part of the platoon leader and thus will involve self study. However, a suggested evaluation task is always provided which requires that the knowledge be applied to a tactical situation. The evaluation of this application is critical and requires a skilled and proficient evaluator who can point out deficiencies and recommend remedial training.

Overall, the components of the platoon training program have to be integrated into the unit gunnery training program in such a manner that there is a continuity of skill acquisition from individuals, to crews, to platoons.

#### TRAINING PROGRAM COMPONENTS

##### Functional Tasks

As outlined in the Table IX Task Analysis, the platoon battle run demands that a number of tasks be performed at a level beyond that required for individual tank gunnery. Thirteen discrete functional tasks have been identified which cover the fundamental skills and knowledges necessary for coordinated platoon operation in the battle run. These functional tasks are presented in Table 1. They are categorized not only by the level at which they are performed (Tank Commander/Crew or Platoon Leader), but also by the general phases of activity they represent within the battle run.

The platoon battle run consists basically of three phases of activity: preparation, movement, target engagement. Preparation includes the development and receipt of a mission, activities within an assembly area, preparation of defensive positions, and consolidation and reorganization on the objective. Movement includes planning and performing all platoon movements within the context of the mission. Target engagement includes all platoon activities upon contact with the enemy.

TABLE 1

FUNCTIONAL TASKS REQUIRED DURING EACH  
PHASE OF THE PLATOON BATTLE RUN

PHASE		
PREPARATION	MOVEMENT	ENGAGEMENT
CO and S3 determine overall training needs, develop missions for platoons.		PL and CO determine engagement training needs, develop platoon scenarios
Task 1: Plan Tactical Operations Task 2: Direct Assembly Area Activities Task 3: Prepare and Issue Oral OPORD Task 4: Formulate Defensive Platoon Fire Plan Task 5: Formulate Offensive Platoon Fire Plan Task 6: Direct Consolidation and Reorganization on Objective	Task 3: Prepare and Issue Oral OPORD Task 8: Control Platoon Tactical Movements Task 9: Give Oral Operational Report	Task 10: Direct Platoon Fires Task 11: Call and Coordinate Supporting Indirect Fires
Task 7: Prepare Range Card	Task 9: Give Oral Operational Report	Task 9: Give Oral Operational Report Task 12: Acquire Targets, Decide Whether to Engage or Hand-Off Task 13: Sense Rounds for Another Tank

TRAINER/  
EVALUATOR

PLATOON LEADER

TANK CDR/CREW

Table 1 lists specifically what functional tasks are required to be performed by whom, during each phase of the battle run. To prepare for a mission, the platoon leader must receive the mission from the CO, plan his tactical operations and brief the platoon on the mission, direct the platoon in preparation for the coming mission, and formulate a platoon fire plan. The tank commanders must carry out the instructions of the platoon leader. They must also send various operational reports to the platoon leader and, in the case of a defensive mission, complete range cards which the platoon leader then uses in formulating his defensive fire plan.

During the movement phase of a battle run, the platoon leader must prepare and issue a movement order to the platoon, and control the platoon's tactical movements. The tank commanders must follow the platoon leader's movement plan and keep him apprised of their situation by giving oral operational reports.

The target engagement phase of battle run activity requires the platoon leader to direct platoon fires whenever the platoon engages targets, and to call for and coordinate all necessary supporting indirect fires. The tank commanders and their crews must use oral operational reports to keep the platoon leader informed of the tactical situation, and engage targets. Target engagement can be further broken down into three steps: target acquisition, target engagement, and sensing of rounds. The crews must first acquire the target, at which time the tank commander must decide whether he can engage the target or should hand it off for engagement to another tank in the platoon. The crew then uses previously learned gunnery skills to engage the target. Finally, the crew must sense the rounds fired. If a crew is not engaging a target, it has a responsibility to sense rounds for the firing tank, to facilitate target destruction.

Although most of the functional tasks listed in Table 1 are performed only by the platoon leader, his proper performance of the tasks directly affects the performance of the platoon as a whole in the battle run. Therefore, the tasks should be integrated, when possible, into a training context which includes the whole platoon.

#### Training on the Functional Tasks

There are, in addition to the above mission activities, two activities listed in Table 1 which are performed by the trainer/evaluator. Both of these activities are associated specifically with the development of a plan to guide platoon level training. First, before training can begin, the company commander must meet with his S-3 staff. This conference is held to determine the company's current training status, and to outline training needs as related to the company's deficiencies, overall training mission, and General Defensive Plan (GDP). The training staff should then develop a number of mission-related training scenarios designed to provide practice in those areas where the company's training status falls short of the training goals.



Second, for the target engagement phase of training, the company commander should meet with the platoon leaders to outline target engagement training needs of individual platoons or crews. Platoon leaders can then develop or assist in developing specific target engagement exercises which will allow practice in areas of weakness.

As shown in Table 1, most of the functional tasks involve preparation, planning, or control. As such, they are performed primarily by the platoon leader. However, since the goal of platoon level training is coordinated platoon activity, these tasks should be practiced by the platoon leader in coordination with his platoon. In this way the platoon learns to react quickly and smoothly to the platoon leader's direction. Likewise, those tasks which are performed by the tank commanders and crews should be practiced as much as possible in an integrated platoon activity setting.

One of the items mentioned frequently in the training objectives for the functional tasks is a platoon level standard operating procedure (SOP). Unit SOPs are developed to routinize and standardize the performance of many operational tasks. In the platoon battle run the control and coordination of activity is extremely important and depends on the degree to which standard operating procedures have been developed and rehearsed. Therefore, the platoon leader should develop a platoon SOP which includes such items as special signals and commands, reporting procedures, area coverage responsibilities, and actions in specific tactical situations. The mastery of these SOP items by all platoon members will enhance the control and coordination of platoon activity in the battle run.

Presented below are the thirteen functional tasks listed in Table 1. Each is described in terms of a training objective. Methods for training on each of the tasks and procedures for evaluating performance on the tasks are also presented. Some of the tasks may be studied using only reference materials; others should be practiced in an operational setting. When an individual feels confident he can perform a particular task, he arranges for an evaluation. The evaluator makes use of the task performance standards to diagnose any problems the individual may experience in performing the task. Results of the evaluation are made known to the individual so that he can correct any weaknesses.

Each functional task is a complete training module and can be trained separately from other tasks. Certain tasks, however, are necessary components of other tasks and should be mastered before training on the larger task can be completed. Any prerequisites necessary for a given functional task will be listed at the beginning of the task. All tasks not requiring prerequisites may be learned in any order as the training opportunity arises.

## Task F-1. Plan Tactical Operations

Task Level: Platoon Leader

Prerequisite: "Prepare and Issue Oral OPORD" (Functional Task 3)

Conditions: Given: Map, terrain board, pencil and paper, oral or written OPORD, platoon SOP

### Performance Requirements:

1. Receive the mission. A mission may be received in either an oral or written operation order or a fragmentary order. Upon receipt of an order, analyze the mission and plan the use of available time.
2. Issue a warning order. Issue a warning order by telling subordinates the mission and the time it will start. This will permit the best use of time available to plan and prepare the platoon.
3. Make a tentative plan. A tentative plan is simply an expression of the plan to accomplish the mission. It provides the mental and physical framework around which actions of the platoon are coordinated.
4. Conduct a reconnaissance. The reconnaissance is the process used to determine a plan to disperse the platoon and its weapons, or to move in the attack.
5. Complete the plan. The reconnaissance may or may not alter the tentative plan, but will add detail to it.
6. Issue the order. Issue an oral order. Issue marked maps, check points, concentrations, or other devices to aid in control. The terrain will dictate a continuous flow of on the spot instructions as the operation proceeds.
7. Supervise. A leader must supervise preparation for the mission. It is a continuous requirement and it is as important as issuing the order.

Performance Standards: Tactical operational plan is developed in accordance with performance requirements.

Discussion: In the planning of tactical operations the platoon leader establishes his concept of how the platoon battle run will be conducted. The platoon leader must be certain that he knows his mission, the situation, the terrain and his resources. Using this information he should develop his concept and plan for indirect fire support, and movement techniques. Critical to the task is that the platoon leader instructs his tank commanders on his concept for the operation from beginning to end, and gives clear and concise orders on what he expects from each. The unit SOPs for control, communication, and target engagement should be briefly reviewed to minimize the necessity for orders once the operation has started.

Suggested Training Methods: This can be learned for the most part by the platoon leader studying the listed references on his own. The trainer can then develop sample missions to give to the platoon leader so that he may practice planning tactical operations. As much as possible, this practice should be done in coordination with the tank commanders, as part of the planning involves issuing orders to the tank commanders and receiving feedback from them. This also enables the tank commanders to better understand platoon tactical operations.

**Study References:**

**TEC Lessons:**

020-171-1870-A, Planning Tactical Operations, Part 1

020-171-1871-F, Planning Tactical Operations, Part 2

020-171-1872-A, Planning Tactical Operations, Part 3

**Manuals:**

FM 17-11E4, Task 171-11E-7705

FM 17-1, Chapter 3, Pages 24-26

FM 21-6, Page 127

**Suggested Evaluation Task:** Plan Platoon Tactical Operations for a Day Movement to Contact

**Resources Required:** One trainer/evaluator (Co. CO, S-3, or Assistant S-3), sand table or terrain board, map covering area depicted on sand table, pencils and paper, copy of platoon and company SOPs, tank commanders.

**Preparations:** Evaluator prepares a written operation order for a day movement to contact and a reconnaissance report covering the area depicted on the sand table.

**Procedure:** Evaluator gives platoon leader the written operation order. Platoon leader is instructed that the evaluator will play the part of the company CO. All communications which the platoon leader would normally direct to the Company CO will be directed to the evaluator. Evaluator indicates the available resources (SOPs, maps, etc.).

**Standards:**

**Platoon Leader:**

1. Issues a warning order to the platoon.
2. Writes out a tentative plan.
3. Requests and directs a reconnaissance. (Note: At this point the evaluator supplies the platoon leader with the prepared reconnaissance report.)
4. Writes out a completed plan.
5. Issues an oral order to the platoon.

Evaluator checks off the above performances as they occur. Evaluator must also make an evaluation of the tactical feasibility and soundness of the completed operational plan. This must be a subjective judgement; therefore the evaluator must be very knowledgeable on the subject of planning tactical operations.

**Feedback:** At the conclusion of the evaluation, the evaluator will discuss the task with the platoon leader, pointing out both strengths and weaknesses. Evaluator will diagnose platoon leader's deficiencies and will recommend further study in specific areas as needed. If necessary, evaluator will require the platoon leader to be re-evaluated at a later time.

## Task F-2: Direct Assembly Area Activity

Task Level: Platoon Leader

Prerequisite: "Formulate Defensive Fire Plan" (Functional Task 4)

Conditions: Given: A tank platoon occupying part of a forward assembly area.

### Performance Requirements:

1. Establish local security as vehicles are positioned.
2. Establish platoon direct fire plan from range cards made for each vehicle.
3. Supervise construction of individual positions for OP/LP's.
4. Coordinate overlapping fires by assigning each vehicle a sector of fire and observation.
5. Supervise camouflage procedures to prevent detection from ground and air observation.
6. Receive status reports from each vehicle.
7. Prepare resupply list.
8. Supervise maintenance.
9. Establish 50 percent feeding for meals and ensure crews get as much rest as possible.

Performance Standards: Platoon assembly area activities are directed in accordance with performance requirements and unit SOP.

Discussion: The assembly area is the area in which the platoon prepares for future action. After the platoon leaves the assembly area, it is not generally possible to receive or issue supplies or to repair and service vehicles and equipment. The platoon must perform these actions, and the platoon leader must insure that his platoon is ready to undertake the mission, before proceeding beyond the assembly area.

Suggested Training Methods: If possible, this task should be practiced on real terrain with tanks and crews present. In such a situation the platoon leader can practice his supervisory tasks and the crews will receive practice in carrying out such assembly area activities as making range cards, constructing positions, and performing pre-fire checks and services. This will enable the platoon leader and tank crews to work together smoothly in conducting assembly area activities.

### Study References:

TEC Lessons:

950-171-5250-F, Direct Assembly Area Activities

Manuals:

FM 17-11E4, Task 171-11E-7710

TC 17-15-5, Pages 114-115

FM 17-1, Appendix XXIV, Pages 409-412

Suggested Evaluation Task: Direct Activities at Platoon Forward Assembly Area

Resources Required: One trainer/evaluator (Co. CO, S-3, or Assistant S-3), area of natural terrain, tank crews and tanks, terrain map matching natural terrain, pencil and paper, copy of company and platoon SOPs.

Preparations: None

Procedure: Evaluator assigns an area of terrain on the ground for the platoon forward assembly area and indicates direction of enemy threat. Evaluator tells the platoon leader to set up the assembly area and informs him that he (the evaluator) will play the part of the company CO and all support facilities. Evaluator indicates the available resources (SOPs, maps, etc.).

Standards:

Platoon Leader:

1. Assigns vehicles to specific positions.
2. Makes arrangements for local security.
3. Assigns overlapping sectors of fire and observation.
4. Instructs tank commanders to camouflage tanks.
5. Requests status reports from each tank commander.
6. Prepares a resupply list.
7. Conducts a maintenance spot check.
8. Arranges feeding and rest schedule for crews.

Evaluator checks off the above performances as they occur.

Feedback: At the conclusion of the evaluation, the evaluator will discuss the task with the platoon leader, using the list of standards to diagnose strengths and weaknesses. Evaluator will recommend further study in specific areas as needed, and if necessary require the platoon leader to be re-evaluated at a later time.

### Task F-3. Prepare and Issue an Oral OPORD

Task Level: Platoon Leader

Conditions: Given: A tank platoon, a situation map, and a tactical mission.

#### Performance Requirements:

Use the five-paragraph operation order format.

1. Situation.
  - (a) Enemy forces. Composition, disposition, location, movements, identification, capabilities, and estimated strength.
  - (b) Information of friendly forces, other than those organic or attached.
2. Mission. A clear, concise statement of the task.
3. Execution. "Concept of Operation:" provides a brief summary of commander's tactical plan.
4. Service Support. Specific instructions concerning administration and logistics for conduct of the operation.
5. Command and Signal.
  - (a) Signal. A reference to the index of SOI in effect.
  - (b) Command. Location of command post, location of commander.

Performance Standards: Issue an operation order according to five-paragraph operation order format.

Discussion: The OPORD is used to convey the platoon leader's plan for the execution of the platoon battle run to his subordinates. It contains both the concept of the operation and actions necessary for execution. For this reason it is essential that all elements of the order be developed and delivered clearly and concisely.

In addition to knowing how to prepare and issue an OPORD, the platoon leader should also know how to issue a Warning Order, which gives advance notice of an action or order, and a Fragmentary Order (FRAGO) which is used to modify or change OPORDs or give specific, timely instructions. To reduce confusion and decrease reaction time the platoon leader should develop the ability to give clear, simple, and brief orders in all situations which require command and control.

Suggested Training Methods: This task consists of learning the procedural format for giving an order. Once the format has been learned from the study references, the platoon leader should continue to use it to develop OPORDs wherever appropriate in the platoon training activities. In this way the platoon leader becomes familiar with the format and content of OPORDs, and the platoon becomes accustomed to receiving them.

#### Study References:

TEC Lessons: None

Manuals:

FM 71-2, Appendix B and C

FM 17-1, Appendix V

**Suggested Evaluation Task:** Prepare and Issue an Oral OPORD for a Movement to Contact

**Resources:** One trainer/evaluator (Co. CO, S-3, Assistant S-3, or knowledgeable LT.), terrain map, tank commanders.

**Preparation:** Evaluator must prepare a completed platoon tactical operations plan for a day movement to contact. If a platoon leader has already been checked out on Task F-1, Plan Tactical Operations, his operational plan from that checkout may be used.

**Procedure:** Evaluator supplies platoon leader with operational plan and terrain map.

**Standards:**

Platoon leader issues an oral OPORD which covers the following:

1. Situation
  - (a) Enemy Forces
  - (b) Friendly Forces (Company Team)
  - (c) Attachments and Detachments (to Co/Team)
2. Mission (Platoon)
3. Execution
  - (a) Concept of operation (how platoon will accomplish mission)
  - (b) Specific missions for each section or tank
  - (c) Coordinating instructions
4. Service Support
  - (a) Location of team trains
  - (b) Time and place of resupply
5. Command and Signal
  - (a) Call signs and frequencies
  - (b) Communications restrictions
  - (c) Pyrotechnic signals
  - (d) Time check

Evaluator checks off each section of the OPORD as the platoon leader gives it. OPORD must be consistent with the information supplied to the platoon leader.

**Feedback:** At the conclusion of the evaluation, the evaluator will discuss the task with the platoon leader, using the list of standards to diagnose areas of strength and weaknesses. Evaluator will recommend further study in specific areas as needed, and if necessary require the platoon leader to be re-evaluated at a later time.

#### Task F-4. Formulate Defensive Platoon Fire Plan

Task Level: Platoon Leader

Prerequisite: "Prepare Range Cards" (Functional Task 7)

Conditions: Given: Map, overlay paper, individual tank range cards, assigned battle positions, pencil, platoon SOP.

##### Performance Requirements:

1. Assign vehicle positions and sectors of fire to each tank commander.
2. Have each crew prepare a range card for both primary and alternate positions.
3. Have tank commanders give recommendation for additional fire coverage by attached or supporting units.
4. Coordinate fires of platoon weapons in the defense, and prepare a platoon fire plan using range cards from all the tanks of the platoon.
5. Complete a sketch map on overlay paper which includes:
  - Prominent map features (roads, buildings, hills, etc.).
  - Position of each tank (by number).
  - Tank sectors of fire.
  - Locations of individual tank targets.
  - Locations of TRPs.
  - Number of tanks able to fire each TRP.
  - Number of tanks able to illuminate each TRP.
  - Locations of indirect fire targets.
  - Limits of platoon sector of fire.
  - Locations of nearest flanking units.
6. Recommend indirect fire targets to company CO.
7. Distribute platoon fire plan to tank commanders and company/team leader.

Performance Standards: Defensive platoon fire plan is formulated in accordance with performance requirements.

Discussion: The defensive fire plan provides the platoon leader with the information he needs to distribute and control direct and indirect fire weapons when his platoon is occupying a static position. The defensive fire plan is deliberate and detailed and is used when the platoon occupies an assembly area or a defensive battle position. This skill should be well learned since during defensive operations is probably the only time that the platoon leader can direct the fires of the entire platoon.

Suggested Training Methods: The platoon leader should first study the references. After that, the trainer can develop scenarios for the platoon leader so that he may practice developing defensive fire plans on a terrain board or real terrain. The tank commanders can simultaneously be trained on preparing range cards (Task 7), since the range cards are used in the development of the defensive fire plan.



Study References:

TEC Lessons: None

Manuals:

FM 17-11E4, Task 171-11E-7708

FM 17-12, Pages 15-1-15-3

TC 17-15-5, Page 128

Suggested Evaluation Task: Formulate Defensive Platoon Fire Plan

Resources: One trainer/evaluator (Co. CO, S-3, or Assistant S-3), real terrain, completed platoon tactical operational plan for a daylight defense, map showing locations of platoon tanks and sectors of fire, range cards for each tank, overlay paper and pencil, company and platoon SOPs.

Preparation: Evaluator must prepare a platoon operational plan for defense, mark the map, and either make range cards for each tank position or have the TCs make them for specific positions. Evaluator may also prepare a list of recommendations for additional fire coverage by attached or supporting units, or have TCs supply recommendations.

Procedure: Evaluator briefs platoon leader on mission, supplies operational plan, and indicates vehicle positions and sectors of fire. Platoon leader is instructed that evaluator will take the place of higher headquarters. Evaluator indicates resources (overlay paper, SOPs, etc.).

Standards:

Platoon Leader:

1. Requests range cards. (Note: Evaluator or TCs give prepared range cards to platoon leader.)
2. Requests recommendations for additional fire coverage. (Note: Evaluator or TCs give platoon leader the prepared list, if any.)
3. Prepares a platoon fire plan using range cards.
4. Completes a sketch map on overlay paper which includes:
  - (a) Prominent map features
  - (b) Position of each tank by number
  - (c) Tank sectors of fire
  - (d) Locations of individual tank targets
  - (e) Locations of TRPs
  - (f) Numbers of tanks able to fire each TRP
  - (g) Numbers of tanks able to illuminate each TRP
  - (h) Locations of indirect fire targets
  - (i) Limits of platoon sector of fire
  - (j) Locations of nearest flanking units
5. Recommends indirect fire targets to CO/evaluator.
6. Distributes platoon fire plan to tank commanders and company/team leader.

Evaluator checks off each performance as it occurs.

Feedback: At the conclusion of the checkout the evaluator uses the standards to diagnose and critique the defensive fire plan with the platoon leader and recommends refresher training where needed. If necessary, the evaluator may recommend the platoon leader be re-evaluated at a later time.

## Task F-5. Formulate Offensive Platoon Fire Plan

Task Level: Platoon Leader

Conditions: Given: Map, designated objective, location(s) of known and suspected enemy position(s), designated mission, platoon SOP.

### Performance Requirements:

Develop a fire plan which designates:

- Movement techniques
- Use of suppressive fires
- Element responsible for suppressive fire
- Element responsible for engaging known targets
- Plans for engaging surprise targets
- Maneuver on contact
- SOP signals and commands

Performance Standards: Offensive fire plan is formulated in accordance with performance requirements.

Discussion: Offensive fire plans usually cannot be as detailed as defensive fire plans. However, an effective offensive fire plan is very necessary and should contain all the necessary elements for quick employment and distribution of platoon firepower when contact is made. All members of the platoon should know how to react under various offensive combat conditions. Command and control should be exercised using prearranged SOP signals and commands which are designed to bring immediate and effective fire on enemy targets as they appear. Rehearsal is a key requirement for effective implementation of the offensive fire plan.

Suggested Training Methods: After studying the references, the platoon leader should practice developing offensive fire plans based on sample scenarios written by the trainer. Any platoon SOP signals and commands involved should be rehearsed in the presence of the platoon, so all platoon members know and understand them.

### Study References:

TEC Lessons: None

Manuals:

FM 17-12, Page 15-4

TC 17-15-5, Pages 123-136

Suggested Evaluation Task: Formulate Offensive Platoon Fire Plan.

Resources: One trainer/evaluator (Co. CO, S-3, Assistant S-3, or knowledgeable LT.), map, terrain board or real terrain, designated offense mission, designated objective, company and platoon SOPs, tank commanders.

**Preparation:** Evaluator must prepare a mission for issuance to the platoon leader.

**Procedure:** Evaluator briefs platoon leader on mission, indicates available resources.

**Standards:**

Platoon leader issues an oral or written offensive fire plan which designates:

1. Movement techniques.
2. Use of suppressive fires.
3. Element responsible for suppressive fire.
4. Element responsible for engaging known targets, if any.
5. Plans for engaging surprise targets.
6. Maneuver on contact.
7. SOP signals and commands.

Evaluator checks off each segment of plan as it is given. Evaluator must also make a subjective judgement of the feasibility of the plan, based on the mission, terrain, and special resources. For this reason evaluator must be very knowledgeable in the area of platoon fire plans.

**Feedback:** Evaluator critiques platoon leader's plan, using standards to diagnose strengths and weaknesses, and recommending further study where indicated. If necessary, evaluator may recommend that platoon leader be re-checked on the task at a later time.

Task F-6. Direct Consolidation and Reorganization on the Objective.

Task Level: Platoon Leader

Prerequisite: "Formulate Defensive Fire Plan" (Functional Task 4)

Conditions: Given: A tank platoon on an objective, platoon SOP.

Performance Requirements:

1. Consolidation.
  - (a) Eliminate remaining enemy resistance.
  - (b) Prepare a defense in preparation for a counterattack.
  - (c) Maintain dispersion upon occupation of the objective and expect to receive considerable indirect fires and attack by enemy aircraft.
  - (d) Employ OP/LP's to screen the position to ensure early warning.
  - (e) Extend security and coordinate with support elements to cover the most likely enemy avenues of approach.
2. Reorganization.
  - (a) Report: Losses, ammo expenditures, fuel status, and condition of vehicles.
  - (b) Bring forward aid station, resupply, and maintenance elements.
  - (c) Evacuate personnel casualties and disabled vehicles as necessary.
  - (d) Reorganize the unit as required for the defense or to continue the attack, to include redistribution of ammunition and personnel.
  - (e) Interrogate prisoners of war briefly for information of immediate value and send them to PW collection points.

Performance Standards: Consolidation and reorganization conducted in accordance with performance requirements.

Discussion: This task is required in those platoon scenarios which call for a hasty attack and consolidation and reorganization on the objective. The platoon must take stock of its situation and prepare for the next phase of the mission once it reaches the objective.

Suggested Training Methods: This task can be learned almost entirely from the references. After the platoon leader has studied these, the evaluator should provide him with scenarios so that he may rehearse consolidation and reorganization on a terrain board or real terrain.

Study References:

TEC Lessons:

020-171-1873-A, Consolidate and Reorganize on the Objective, Part 1

020-171-1874-A, Consolidate and Reorganize on the Objective, Part 2

Manuals:

FM 71-1, Page 4-72

FM 17-11E4, Task 171-11E-7711

Suggested Evaluation Task: Direct Consolidation and Reorganization on the Objective.

Resources: One trainer/evaluator (Co. CO, S-3, or Assistant S-3); real terrain or terrain model/sand table; tank commanders; call signs for tanks, support elements, and company; SOPs for company and platoon; platoon mission; maps.

Preparation: Evaluator will have to prepare a platoon mission and a scenario of what has occurred prior to seizing the objective. Evaluator also prepares status reports for each of the five tanks.

Procedure: Evaluator briefs platoon leader on mission and scenario and indicates present location of platoon's tanks. Evaluator supplies all necessary call signs. He also indicates any locations of continuing enemy resistance.

Standards:

During consolidation, platoon leader:

1. Arranges to eliminate remaining enemy resistance.
2. Prepares defense plan.
3. Maintains dispersion.
4. Warns TCs to expect counterattack.
5. Sets up OPs/LPs.
6. Coordinates with support elements to increase security.

During reorganization, platoon leader:

1. Requests status reports from TCs. (Note: TCs give prepared status reports to platoon leader at this point, using call signs and radio procedures.)
2. Arranges for resupply, aid station, and maintenance.
3. Arranges for evacuation of personnel casualties and disabled vehicles.
4. Depending on the mission, reorganizes for the defense or plans to continue the attack.
5. Processes PWs and sends them to PW collection points.

Evaluator checks off these performances as they occur. Evaluator must also make a subjective judgement of the appropriateness of the platoon leader's decision.

Feedback: Evaluator critiques platoon leader's performance, using standards to diagnose strengths and weaknesses. Evaluator recommends refresher training or re-evaluation as necessary.

## Task F-7. Prepare Range Card

Task Level: Tank Commanders

Conditions: Given: Tank in a designated hull-down position, tank sector of fire, map, paper, pencil, gunner's quadrant, elevation quadrant, azimuth indicator, platoon SOP.

### Performance Requirements:

Prepare a sketch range card which includes:

- Range card identification
- Sector of responsibility
- Range card reference point
- Target reference point information:
  - (a) Target identification
  - (b) Deflection
  - (c) Range to target
  - (d) Quadrant evaluation

Performance Standards: Range card is prepared in accordance with performance requirements.

Discussion: All tank commanders should be thoroughly familiar with preparing range cards for their individual tanks. However, in a platoon exercise, the information from individual tanks has to be assimilated and coordinated by the platoon leader. Therefore the entire platoon needs to practice range card procedures in the development of a platoon fire plan.

Suggested Training Methods: This is basically a crew level skill. The only additional element which requires practice beyond the level of the soldier's manual task is that the tank commander must tie in his range card with elements on his flanks. This task can be effectively trained in conjunction with other tasks such as formulating a defensive fire plan, performing assembly area procedures, or consolidating and reorganizing on the objective.

### Study References:

TEC Lessons:

020-171-5301-F, Preparing the Circular Range Card

Manuals:

FM 17-12, Pages 11-2 - 11-6

TC 17-15-5, Page 26

Suggested Evaluation Task: Prepare a Tank Range Card

Resources: One evaluator (knowledgeable NCO), one or more tanks in defensive position(s), tank sector(s) of fire, maps, paper, pencils, real terrain, company and platoon SOPs. Tanks are equipped with gunner's quadrant, elevation quadrant, azimuth indicator, range finder, etc.

**Preparation:** One or more persons may be checked out simultaneously on this task. Evaluator must delineate sectors of fire.

**Procedure:** Evaluator assigns each tank commander a sector of fire and indicates available resources.

**Standards:** Each tank commander completes a sketch range card which includes:

1. Range card identification.
2. Sector of responsibility.
3. Range card reference point.
4. Target reference point information, to include:
  - (a) Target identification
  - (b) Deflection
  - (c) Range to target
  - (d) Quadrant elevation

Evaluator checks off each completed portion of the range card.

**Feedback:** Evaluator critiques each range card using the standards to diagnose areas of strength and weakness, and recommends further study where needed.

## Task F-8. Control Platoon Tactical Movements

Task Level: Platoon Leader

Prerequisite: "Prepare and Issue Oral OPORD" (Functional task 3)

Conditions: Given: A mission, a tank platoon in a tactical situation, map, specified objective, platoon SOP.

### Performance Requirements:

1. Analyze tactical situation rapidly.
2. Select movement technique.
3. Give movement order to platoon (verbally or by hand signals).
4. Supplement movement order with frag orders as necessary.

Performance Standards: Platoon tactical movements are controlled in accordance with performance requirements.

Discussion: Platoon tactical movement requires close coordination between the platoon leader, the section leader, and the tanks in the respective sections. All elements need to know platoon signals, commands, reporting procedures, and the platoon fire plan. In addition to moving tactically, the platoon must maintain continuous observation for enemy targets and react immediately to an enemy threat or to the section/platoon leader's instructions/signals.

Suggested Training Methods: This task should be practiced as much as possible in a field setting, with the whole platoon and their tanks present. Although the theory and fundamentals of platoon tactical movement may be learned by studying the reference, it is important that the platoon leader be given opportunities to actually control platoon movement over areas of real terrain. The trainer can develop scenarios which require platoon movement under a variety of conditions.

### Study References:

#### TEC Lessons:

020-171-5251-F, Tank Section/Platoon Techniques of Movement, through

020-171-5254-F, Part 1 through Part 4

020-171-5255-F, Self Evaluation: Tank Section/Platoon Techniques of Movement

#### Manuals:

TC 17-15-5, Pages 76-85

Suggested Evaluation Task: Control Platoon Tactical Movements when Enemy Contact is Expected.

Resources: One trainer/evaluator (Co. CO, S-3, Assistant S-3, or knowledgeable LT.), tank platoon on a fairly large area of terrain or sand table/terrain model with movable tank models, platoon mission, specified objective, company and platoon SOPs.



**Preparation:** Evaluator must prepare a platoon mission which refers to the terrain or terrain model used.

**Procedure:** Evaluator briefs platoon leader on mission and objective, and indicates that contact with the enemy is expected. Evaluator tells platoon leader that he will ride on platoon leader's tank. Tank commanders move the tank models manually across the terrain model in response to the platoon leader's commands.

**Standards:**

**Platoon Leader:**

1. Selects the bounding overwatch movement technique.
2. Gives movement order to the platoon either verbally or by pre-arranged hand signals.
3. Supplements the movement order with frag orders as necessary.

Evaluator checks off the above procedures as they are applied. Evaluator must also make a subjective judgement of the strengths and weaknesses of the platoon leader's movement plan.

**Feedback:** Evaluator critiques the platoon leader's actions, using the standards to diagnose both strengths and weaknesses, and recommending further study where necessary. Evaluator may require platoon leader to be re-tested at a later time.

### Task F-9. Give Oral Operational Report

Task Level: Tank Commander, Platoon Sergeant, Platoon Leader

Conditions: Given: Tank or platoon in a tactical situation, discrete event or change in situation which requires making a report to higher level (Examples: Tank completes engagement, platoon moves, platoon detects incoming artillery or NBC attack, higher Hq. requests specific information such as ammo status, etc.), platoon reporting SOP.

#### Performance Requirements:

1. Determine what type of report is appropriate (SITREP, NBC, STATREP, SPOTREP, etc.).
2. Formulate and deliver report, using elements contained in unit SOP for specific type of report.

Performance Standards: Oral operational report is delivered properly in accordance with performance requirements in unit SOP.

Discussion: Reports are the primary means by which leaders receive the information they need to make plans and decisions. The most common types of reports are Spot Reports (SPOTREP), Situation Reports (SITREP), and Status Reports (STATREP). Each report provides specific types of information and follows a specified format. Report formats are usually unit SOP items. All tank commanders and platoon leaders should know the unit SOP for each type of report and be able to deliver the report in an accurate, timely, and complete manner.

Suggested Training Methods: This task consists of learning the format and content of different operational reports. Once the platoon has learned these from the study references, the trainer should provide opportunities for the platoon to go through the procedures of giving oral operational reports under any training setting. Proper reporting can be easily overlooked when platoon members are practicing tasks they consider to be more important. The trainer must insure the platoon members do not take shortcuts this way, but make oral reports as if they were in an actual tactical situation.

#### Study References:

TEC Lessons: None

#### Manuals:

FM 17-1, Appendix V, Pages 268-274.

FM 71-2, Appendix B and C

TC 17-15-5, Pages 208-209

Suggested Evaluation Task: Give Oral Report of Ammunition Status

Resources: One evaluator (knowledgeable NCO), company and platoon SOPs, call signs of platoon leader and of trainee's tank. Note: More than one individual may be checked out on this task at the same time.

**Preparation:** Evaluator writes out a list of initial tank ammunition load and how much ammo of each type was expended for each tank, assigns call signs.

**Procedure:** Evaluator gives TCs the ammunition lists and indicates available resources (platoon and company SOPs). Evaluator acts as platoon leader for this task and requests ammo status of each TC, using call signs.

**Standards:**

Within 1 minute per individual being tested, each individual:

1. Initiates simulated radio call to platoon leader (using call signs).
2. Accurately reports ammo status using code and format outlined in company and platoon SOPs.

Evaluator checks off these actions as they occur.

**Feedback:** Evaluator diagnoses strengths/weaknesses and discusses them with TC, going over the procedure outlined in the platoon SOP is necessary. Evaluator may recommend that TC be re-evaluated at a later time.

## Task F-10. Direct Platoon Fires

Task Level: Platoon Leader

Conditions: Given: Tank platoon in a tactical situation offensive or defensive, completed platoon fire plan, platoon SOP.

### Performance Requirements:

1. Locate and analyze threat rapidly.
2. Issue concise platoon fire command to include:
  - Alert (who is being notified)
  - \*- Weapon, ammunition, or searchlight
  - Target description
  - Target location
  - \*- Control (type of fire pattern, or who uses what fire pattern)
  - Execution (Command: FIRE, or AT MY COMMAND, followed at desired time by FIRE)
3. Supervise servicing of targets as necessary.

\*Optional. Depending on situation (information already contained in SOP, shortage of time, etc.), these elements may be omitted.

Performance Standards: Platoon fires are directed in accordance with performance requirements.

Discussion: SOP will usually specify that engagements will be initiated by the tank that first sees a threat target. However, in some situations such as an ambush or in the defensive the platoon leader must give the fire command and control fires. In addition to starting and stopping engagements, fire control also requires that the platoon leader gives brief and precise commands to shift fires or signal maneuver. Coordination in the servicing of targets and ammo conservation is the goal of effective platoon fire control.

Suggested Training Methods: The platoon leader should first study the references. After that, the task should be repeatedly practiced on the scaled mini-tank range in conjunction with many of the operational tasks.

### Study References:

#### TEC Lessons:

- 020-171-5271-F, Platoon Fire Command, Part 1
- 020-171-5272-F, Platoon Fire Command, Part 2
- 020-171-5273-F, Platoon Fire Command, Part 3
- 020-171-5274-F, Platoon Fire Command, Part 4

#### Manuals:

- FM 17-11E4, Task 171-11E-7709
- FM 17-12, Pages 15-1 - 15-7
- TC 17-15-5, Pages 123-125, 129-132, and 142-144

Suggested Evaluation Task: Direct Platoon Fires During Conduct of an Ambush.

**Resources:** Trainer/evaluator (Co. CO, S-3, or Assistant S-3), tank platoon in a tactical defensive position or terrain model/sand table, completed platoon fire plan, company and platoon SOPs, call signs of all tanks, tank commanders.

**Preparation:** If the task is being evaluated using tanks and real terrain, the evaluator must assign each tank to a position. Targets for the ambush must be set up in such a way that they can be popped up at a given time. If a sand table/terrain model such as that outlined in Appendix B is used, targets can be presented as outlined in the discussion of the sand table. In either case a platoon fire plan must be completed which is relevant to the terrain used. The evaluator must also prepare an intelligence report of enemy units moving into the area.

**Procedure:** Evaluator familiarizes the platoon leader with the platoon fire plan and indicates the positions of the other tanks. Evaluator indicates he will listen in while the platoon leader directs platoon fires. The platoon leader is given an intelligence report which details number and types of vehicles expected, and the routes they are traveling along. Evaluator instructs platoon leader to prepare an ambush.

**Standards:**

**Platoon Leader:**

1. Issues a platoon fire command which includes:
  - (a) Call signs of specific tanks or sections
  - (b) Weapons and ammo to be used (unless this is already covered in platoon SOP)
  - (c) Target descriptions
  - (d) Expected target locations
  - (e) Type of fire pattern to be used

When the evaluator presents the targets, platoon leader:

2. Issues execution command

Evaluator checks off each component of the fire command as it is given.

**Feedback:** Evaluator critiques platoon leader's performance, using standards to diagnose strengths and weaknesses, and recommending further practice where indicated. Evaluator may require platoon leader to be re-evaluated at a later time.

## Task F-11. Call and Coordinate Supporting Indirect Fires

Task Level: Platoon Leader

Conditions: Given: Map, tank platoon in a tactical situation, platoon fire plan, locations of indirect fire targets, compass, binoculars, call signs, radio

### Performance Requirements:

1. Analyze threat to determine necessity for indirect fire.
2. Send complete call for fire to FIST.
3. Observe for effects of indirect fire.
4. Send adjustment to FIST as needed.
5. Observe results of fire for effect.
6. Determine when objective has been achieved and notify FIST to end mission.

Performance Standards: Indirect fire support is controlled and coordinated in accordance with performance requirements.

Discussion: Indirect fire support is very important in a tank platoon tactical situation. In the platoon battle run indirect fire support is called to the FIST team which processes the calls. Fire is delivered only on target reference points and no adjustments are allowed. However, the platoon leader needs to analyze his mission and the terrain in order to decide when and where he wants his indirect fire support delivered.

Suggested Training Methods: Once the basics of coordination of supporting indirect fires have been learned from the references, the trainer should provide opportunities for the task to be frequently practiced in an operational setting. The availability of supporting fires should be written in to operational engagement scenarios whenever possible.

### Study References:

#### TEC Lessons:

949-061-0004-F, Call for Fire (revised)

949-061-0005-F and 0006-F, Adjustment of Field Artillery Fire, Bracketing and Creeping, Parts 1 and 2

949-061-0007-F, Adjust One-Gun Illumination

#### Manuals:

TC 17-15-5, Pages 163-172

FM 17-11E3, Tasks 171-11E-7601 and 171-11E-7602

FM 6-40, Paragraph 9-1, 9-9, 10-2, 10-11

FM 71-1

FM 71-2

FM 23-91

TC 6-40-4

Suggested Evaluation Task: Call and Coordinate Artillery Fires on a Predetermined Target.

Resources: One trainer/evaluator (Co. CO, S-3 or Assistant S-3, or knowledgeable LT.), one sand table or terrain board such as that described in Appendix B, platoon fire plan, map with locations of indirect fire targets marked, call signs for FIST, small puffs of cotton or wads of paper.

Preparation: Evaluator must prepare a platoon fire plan and mark a map to correspond with terrain shown on the terrain model. If platoon leader has already been checked out on the development of fire plans, his own plan may be used.

Procedure: Evaluator briefs platoon leader on fire plan and location of indirect fire targets. Evaluator indicates he will act as FIST team, and instructs platoon leader to call for fire on any indirect fire target. After initial call for fire evaluator drops small cotton puffs or paper wads on terrain model to represent artillery rounds. These must be dropped far enough away from target point to necessitate corrections. Evaluator 'adjusts' fire in response to platoon leader's instructions.

Standards:

Platoon Leader:

1. Sends complete call for fire to FIST/evaluator.
2. Sends adjustments to FIST as needed.
3. Achieves final adjustment which places fire for effect no farther than 50 meters (according to terrain model's scale) from indirect fire point.

Evaluator checks off each action as it occurs.

Feedback: Evaluator critiques platoon leader's call for fire and adjustment, pointing out strengths and weaknesses. Evaluator recommends refresher training or study and re-evaluation as necessary.

## Task F-12. Acquire Targets and Decide Whether To Engage or Hand-Off Targets

Task Level: Tank Commander

Conditions: Given: Tank platoon in a tactical situation, tank sectors of fire, presence of targets in area, platoon SOP.

### Performance Requirements:

1. Detect, locate, identify targets.
2. Decide whether a target should be engaged based on:
  - limits of sector of fire
  - guidance from section or platoon leader
  - priority of fires
3. Hand-off targets that cannot be engaged by transmitting target acquisition information to tank responsible for sector in which target appears.

### Performance Standards:

1. Targets are evaluated in accordance with performance requirements and decision on whether to engage is made.
2. Those targets which cannot be engaged are handed off.

Discussion: An essential and key requirement for both crew and platoon level gunnery is target acquisition. Threat targets must be detected, located, identified and engaged as soon as they appear. With a 40 second time limit on all day engagements rapid target acquisition and engagement becomes even more critical.

In a platoon engagement the possibility exists that more than one tank can acquire the same targets. In these situations the requirement exists that when a target is acquired, a quick decision has to be made whether the target can/should be engaged or whether it should be handed off to another tank for that tank to engage. Additionally, in the case of multiple targets, it may be possible for more than one tank to engage these targets. In these situations, communication is necessary between tanks to establish who will be responsible for servicing given targets. In most cases the decisions related to servicing targets are the responsibility of the platoon leader or section leader.

The training requirement exists for platoon leaders to establish operating procedures which will specify how targets are to be handed off and how fires will be distributed during multiple target engagements.

Suggested Training Methods: The basic task of acquiring targets may be learned by studying the references. However, this task must be continually practiced in an operational setting in order to maintain target acquisition skills. The trainer should arrange practice situations in which targets are sometimes presented in only one or two sectors of fire, necessitating hand off. Tank commanders should be instructed to use proper radio technique when handing off targets, even if radios are not actually present.



Study References:

TEC Lessons:

- 020-171-1611-F, Target Range Determination
- 020-171-1612-F, Locating and Reporting Targets
- 020-171-1613-F, Use of Binocular Reticle and Worm Formula
- 020-171-1614-F, Target Acquisition Scanning Techniques

Manuals:

FM 17-12, Chapter 6 and Chapter 15.

Suggested Evaluation Task: Acquire Multiple Targets in Three of Five Tank Sectors of Fire, Decide Whether to Engage or Hand-Off.

Resources: One trainer/evaluator (Co. CO, S-3, Assistant S-3, or knowledgeable LT.), tank platoon on real terrain or a scaled tank firing range with remote control targets available or terrain model/sand table such as that described in Appendix B, tank sectors of fire, company and platoon SOPs, tank call signs.

Preparation: Evaluator must prepare tank sectors of fire and arrange for the presentation of targets in only three of these five sectors of fire. Targets when presented must be visible from all five tank positions.

Procedure: Evaluator gives tank commanders their sectors of fire (all five tank commanders are checked out simultaneously) and briefs them on the mission. Evaluator informs tank commanders that he will listen in on platoon net or, if a terrain model is used, that he will represent all crew members.

Standards:

1. All targets are detected within 10 seconds of presentation.
2. Tank commanders in those three sectors of fire which can engage targets, give fire commands to their crew for engagement of targets.
3. Tank commanders in those two sectors of fire which have no targets, hand off any targets they have detected in other sectors by transmitting target information to the appropriate tank commander, using proper call signs.

Evaluator checks off each action as it occurs.

Feedback: Evaluator critiques all five tank commanders on their performance and recommends further study/re-evaluation as necessary.

### Task F-13. Sense Rounds for Another Tank

Task Level: Tank Commander

Conditions: Given: Tank platoon in a tactical situation, tank sectors of fire, targets present in less than five sectors of fire, one or more other tanks in platoon can observe fired rounds, platoon SOP.

#### Performance Requirements:

1. Tanks engage targets in their sectors of fire.
2. Tank commanders of observing tanks sense rounds with binoculars.
3. Observing tanks transmit sensing to TCs of firing tanks.
4. Firing tanks make adjustments as necessary.
5. Sensing procedure continues until all targets are destroyed.

Performance Standards: Fired rounds are sensed by observing tanks in accordance with performance requirements.

Discussion: In some platoon firing engagements it is possible for non-firing tanks to observe and sense rounds for the firing tank. Platoons need to establish priorities for battlefield observation and sensing of fired rounds, and also the procedures for transmitting sensing information to the firing tank, to insure all targets are effectively engaged.

Suggested Training Methods: Once the platoon members have studied the references and can accurately sense rounds, the trainer must arrange practice sessions as outlined in the Suggested Evaluation Task below. An evaluator need not be present during these practice sessions, but the trainer should stress the use of proper radio procedure.

#### Study References:

TEC Lessons: None

Manuals:

FM 17-12, Chapter 13, Paragraph d

Suggested Evaluation Task: One Tank in Platoon Senses Rounds for Other Tanks.

Resources: One trainer/evaluator (Co. CO, S-3, Assistant S-3, or knowledgeable LT.), two tanks (one is equipped with a subcaliber firing device), scaled min-tank live fire range, multiple scale targets, binoculars, call signs of tanks.

Preparation: Evaluator arranges for targets to be presented only in one sector of fire (for tank equipped with subcaliber firing device).

Procedure: Evaluator positions himself on non-firing tank and instructs non-firing tank commander to sense rounds for firing tank. Targets are presented and engaged by firing tank. Firing tank commander makes adjustments according to non-firing tank's sensing. Evaluator also senses rounds, but does not report sensing.

**Standards:**

1. Commander of nonfiring tank transmits accurate sensing to commander of firing tank.
2. Firing tank commander makes adjustments according to this sensing.
3. Sensing procedure continues until all targets are destroyed.

Evaluator checks off actions as they occur.

Feedback: Evaluator critiques nonfiring tank commander's performance and recommends further practice or re-evaluation as necessary.

### Operational Tasks

Once the functional tasks are mastered, they can be incorporated into the development of operational tasks. These are tasks which are specifically mission oriented, are practiced in a simulated operational environment, and are the closest representation of the tasks in Table IX. They include sequences of events from each of the three major mission activities outlined in Table 1: preparation, movement, and engagement. The preparation phase is most often performed separately; movement and engagement may be separate or combined. The operational sequences vary from battle run to battle run. However, certain characteristic types of sequences can be practiced which will facilitate the effective operation of the platoon in a battle run situation.

A series of sample operational tasks appears in the following section. Each is keyed specifically to the requirements of the Table IX Platoon Battle Run. For training purposes, these exact tasks can be used, or the trainer can formulate other operational tasks by following the guidelines set forth in this section.

### Development of Operational Tasks

Figure 1 is a flow chart which outlines the platoon's activities during a platoon battle run. The functional tasks utilized in each step are referenced. The trainer can choose any segment of the flow chart and develop an operational task from it by including the appropriate tasks. For instance, if the trainer wished to exercise the platoon on the preparation phase, he would concentrate on Lines 2 through 6 of the flow chart. If the mission were an offensive maneuver, he would include Tasks F-1, F-2, F-3, and F-5. If it were defensive, he would include Tasks F-1, F-2, F-3, F-4, and F-7.

In the preparation phase there is not a great deal of variance in what the platoon leader and the platoon are required to do from one mission to another. The movement and engagement phases, however, are more complex and the actual configuration of an operational task for these phases can take many forms. Figure 2 presents a planning chart for developing engagement tasks. Contained in the table are all of the operational conditions which can apply to an engagement task. These conditions are based on the operational requirements for a platoon battle run contained in the 7th ATC training and evaluation outline for Table IX. (A summary of these requirements is listed in Appendix A.) As an example, suppose a trainer decides his platoons need practice on engaging multiple targets at night. Using Figure 2 to develop his engagement, he would first select the appropriate mission sequence; in this case, Night Defend. He would next select the operational situation for the platoon; in the example in Figure 3, this is "Platoon stationary and on line, both sections receive targets." Next he would choose a target array; in this case, since the platoon needs practice on multiple targets, he would choose "All tanks have multiple targets." Under type of targets, he chooses "All targets are main gun targets," and under special

FIGURE 1. PLATOON ACTIVITIES DURING A PLATOON BATTLE RUN

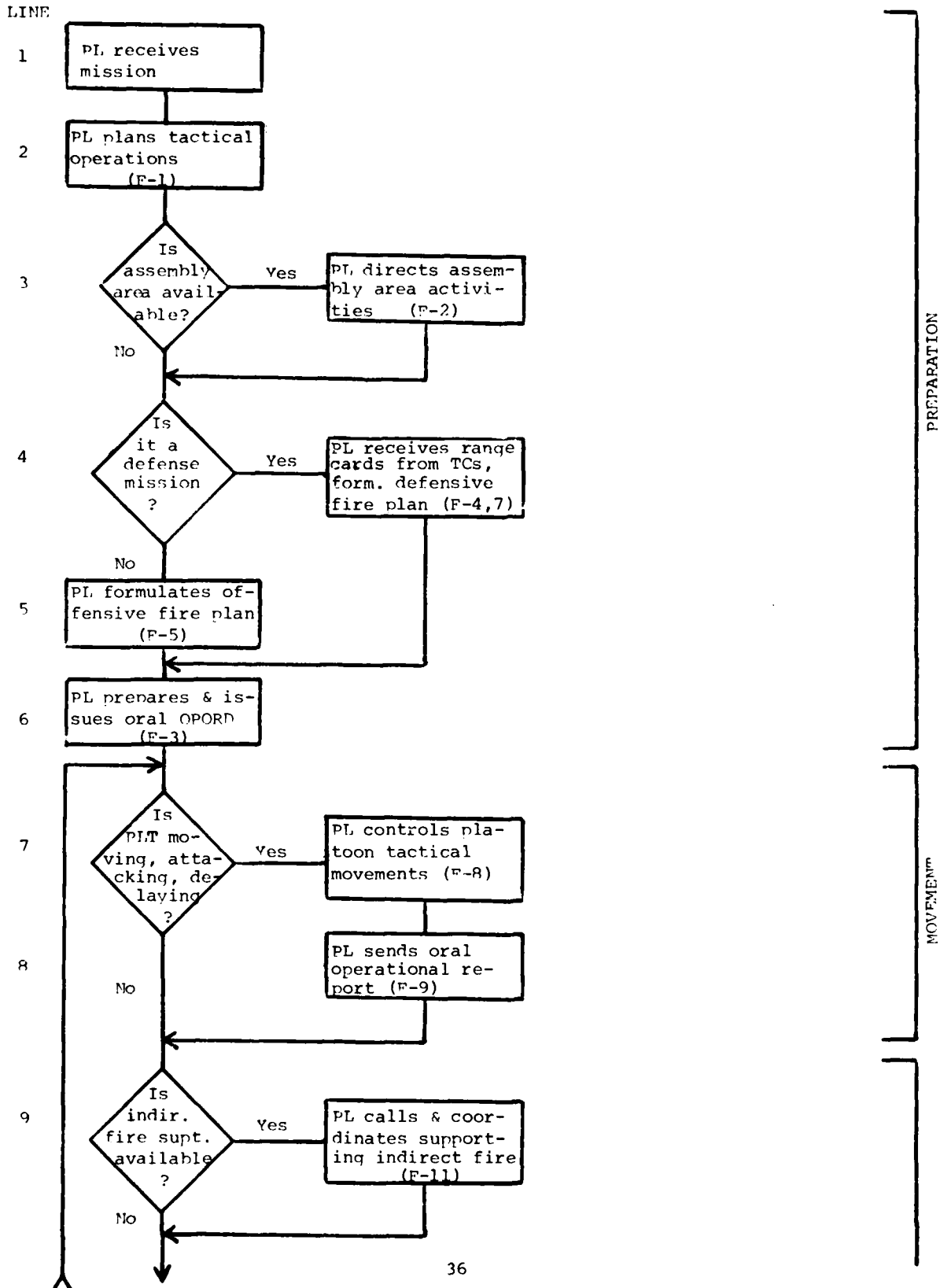
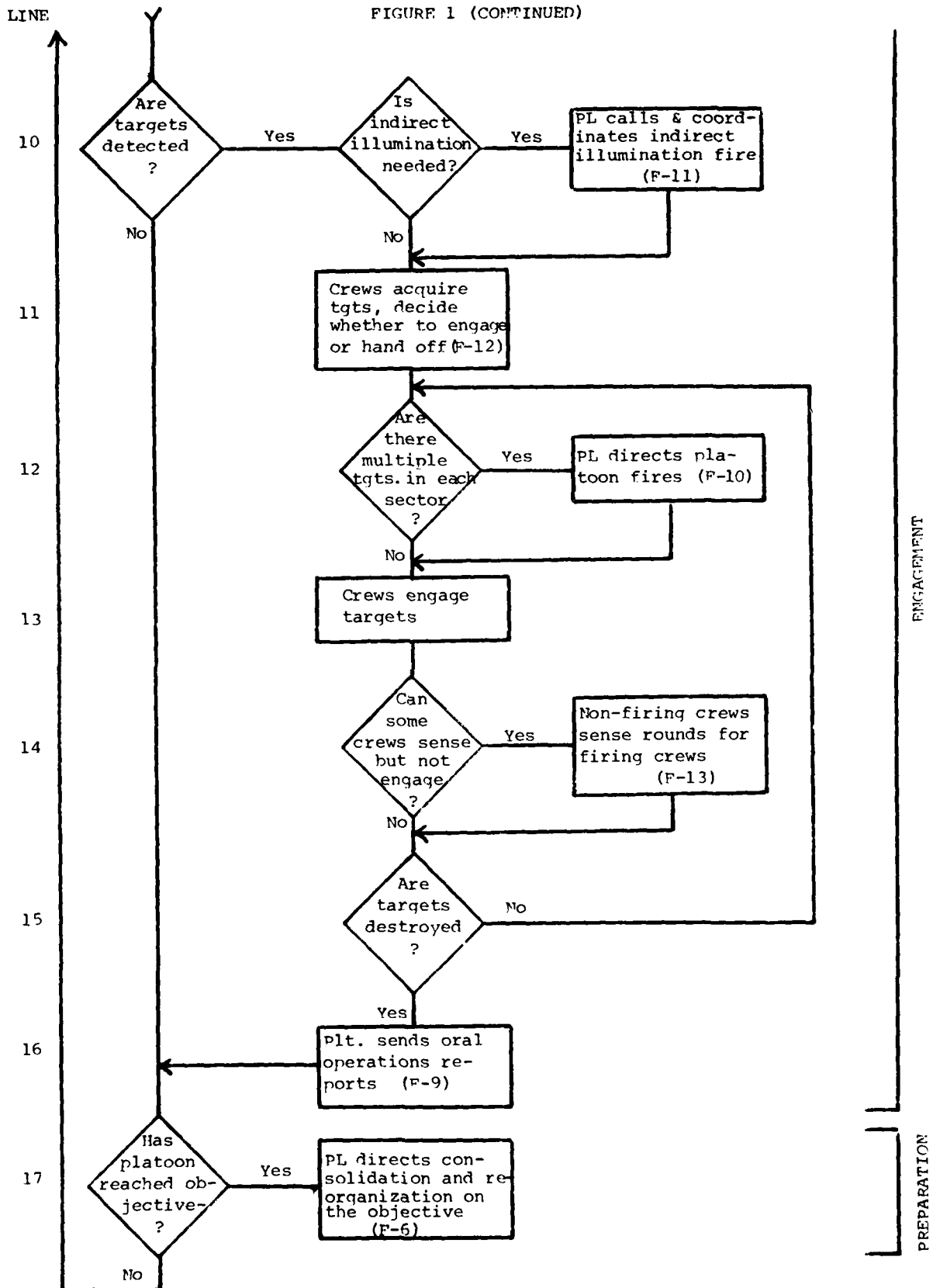


FIGURE 1 (CONTINUED)



A. Mission Sequence (One Condition Applicable)			
1. Movement to Contact/ Attack	2. Day Defend	3. Night Defend	4. Delay

B. Platoon Situation (One Condition Applicable)		
1. Platoon stationary and on-line	2. Platoon using bounding overwatch	3. Platoon moving on-line
a. One section receives targets	a. Bounding section receives targets	a. One section receives targets
b. Both sections receive targets	b. Overwatching section receives targets	b. Both sections receive targets

C. Target Array (One Condition Applicable)		
2. Some tanks in section/platoon have no targets; others have one target.	3. One Target per tank in section/platoon	4. Some tanks have no targets, others have one or multiple targets.
		5. All tanks have at least one target, some have multiple targets.
		6. All tanks have multiple targets.

D. Type of Targets (One Condition Applicable)		
1. All targets are main gun targets.	2. All targets are machine gun targets.	3. Some targets are main gun targets, some are machine gun targets.

E. Special Engagement Conditions (None, One, or More Applicable)				
1. Smoke - Platoon or section fires smoke to cover movement or to mark flanks for air support.	2. Indirect Fire/ Air Support - Platoon leader calls for fire to support platoon fires, or Company CO provides for air support.	3. NBC - Platoon detects NBC attack and continues mission under NBC conditions.	4. Indirect Illumination - Platoon leader calls for indirect illumination at night; platoon engages targets during period of illumination.	5. Stabilized Mode - Platoon fires moving engagement using stabilization.

FIGURE 2. PLANNING CHART FOR TARGET ENGAGEMENT CONDITIONS FOR TANK PLATOON BATTLE RUN

A. Mission Sequence (One Condition Applicable)			
1. Movement to Contact/ Attack	2. Day Defend	3. Night Defend	4. Delay
B. Platoon Situation (One Condition Applicable)			
1. Platoon stationary and on-line a. One section receives targets b. Both sections receive targets			
2. Platoon using bounding overwatch a. Bounding section receives targets b. Overwatching section receives targets c. Both sections receive targets			
3. Platoon moving on-line a. One section receives targets b. Both sections receive targets			
C. Target Array (One Condition Applicable)			
1. Some tanks in section/platoon have no targets; others have one target.			
2. One Target per tank in section/platoon			
3. Some tanks have no targets, others have one or multiple targets.			
4. All tanks have at least one target, some have multiple targets.			
5. All tanks have multiple targets.			
D. Type of Targets (One Condition Applicable)			
1. All targets are main gun targets.			
2. All targets are machine gun targets.			
3. Some targets are main gun targets, some are machine gun targets.			
E. Special Engagement Conditions (None, One, or More Applicable)			
1. Smoke - Platoon or section fires smoke to cover movement or to mark flanks for air support.			
2. Indirect Fire/Air Support - Platoon leader calls for fire to support platoon fires, or Company CO provides for air support.			
3. NBC - Platoon detects NBC attack and continues mission under NBC conditions.			
4. Indirect Illumination - Platoon leader calls for indirect illumination at night; platoon engages targets during period of illumination.			
5. Stabilized Mode - Platoon fires moving engagement using stabilization.			

PLANNING CHART FOR TARGET ENGAGEMENT CONDITIONS FOR TANK PLATOON BATTLE RUN

FIGURE 3. USING THE PLANNING CHART FOR TARGET ENGAGEMENTS



engagement conditions, he would provide for "Indirect illumination." His planning sheet would now list all the parameters for his planned engagement as they appear in Figure 3.

Once the parameters are selected, the trainer must fill in the specific conditions under which the engagement should take place, and the standards which he has decided should be met. A sample of a completed task is shown in Figure 4. (This task also appears in the section entitled "Suggested Training Methods for Operational Tasks.") Note that the task standard calls for a 90% hit/kill ratio. This is higher than the 70% qualification ratio called for in the Table IX Platoon Battle Run. Using a higher standard for individual tasks in the training and practice operational tasks will enable the platoon to more readily meet the qualification standards which are accumulated over all engagements, on the actual platoon qualification course.

When developing operational tasks for platoon training, the trainer should be sure to develop enough tasks so as to include all the operational requirements present in the Table IX Platoon Battle Run. These operational requirements and the functional tasks related to each are listed in Appendix A, and examples of tasks incorporating all operational requirements are listed in the next section. Operational tasks can range from very simple, covering only a single operational requirement, to the level of complexity involved in an entire platoon battle run.

#### Suggested Training Methods for Operational Tasks

A final but very important consideration in the development and training of operational tasks is the availability of training resources at the LTA. All of the operational requirements for Table IX should be practiced in as realistic a situation as possible. It would be ideal to allow platoons unlimited time, terrain, fuel, and live ammunition for training. However, scarcely any local training area or home station has an adequate amount of any of these resources. Training then involves making the best possible use of whatever resources are at hand and simulating those functions, such as target engagement, which cannot be performed in a "live" manner.

There are three types of simulation training methods, requiring three levels of resources, which are available at most home station training areas. These are the non-fire dry run, the subcaliber fire station, and simulated fire and maneuver. Descriptions of these three training methods and example operational tasks which can be taught with them are listed below.

Non-Fire Dry Run. A non-fire dry run is an exercise in which no weapons fire is conducted, and no vehicle movement is required. It can be conducted in a classroom, motor pool, or any small open area. Resources such as slides, TEC tapes, terrain models, and tank communication equipment can be utilized to teach or practice a variety of platoon tasks. The platoon leader and tank commanders may gain experience on battle run planning, preparation, and control by playing out small scenarios on a terrain board or drilling on procedural tasks. A special terrain board which can be used for practice on

TASK: ENGAGE THREAT TANK COMPANY UNDER  
INDIRECT ILLUMINATION.

CONDITIONS:

1. Platoon is in a defensive position at night.
2. A FIST team with illumination rounds is available.
3. Platoon leader has a complete fire plan.
4. Platoon leader is notified of enemy activity in platoon's sector of fire.
5. After illumination begins, platoon is presented with 10 tank targets at ranges of 800-1200m.
6. Targets remain up for 60 seconds.

STANDARDS:

1. PL sends complete + accurate call for fire.
2. PL adjusts illumination as necessary.
3. At least 9 tank targets are hit/killed.
4. Each TC sends a complete + accurate engagement report to the PL.
5. PL directs fire when necessary.

FIGURE 4. SAMPLE OF A COMPLETED OPERATIONAL TASK

such diverse tasks as planning tactical operations, calling for indirect fire, and acquiring/handing off targets, is presented in Appendix B.

Functional tasks which may be practiced in a non-fire dry run environment include:

- . Plan Tactical Operations (F-1)
- . Direct Assembly Area Activities (F-2)
- . Prepare and Issue an Oral OPORD (F-3)
- . Give Oral Operational Report (F-9)
- . Formulate Defensive Platoon Fire Plan (F-4)
- . Prepare Range Card (F-7)
- . Formulate Offensive Platoon Fire Plan (F-5)
- . Direct Platoon Fires (F-10)
- . Call and Coordinate Supporting Indirect Fires (F-11)
- . Acquire Targets, Decide Whether to Engage or Hand-Off (F-12)
- . Direct Consolidation and Reorganization on Objective (F-6)

The specific resources required for each of these tasks and suggested training procedures are detailed under the "Suggested Evaluation Task" section of each Functional Task description (Pages 10 through 33).

Certain operational requirements necessary to the Table IX Platoon Battle Run may also be practiced in a non-fire dry run environment. These include Requirements 4, 9a, 9b, and 9c from Appendix A. Listed here are two sample operational tasks covering some of these requirements, and suggestions on how to train on these tasks.

#### Task 0-1: Prepare for Offensive Mission

Operational Requirements Covered: 9a, 9c

Related Functional Tasks: 1, 2, 3, 5

Conditions: Platoon leader receives mission, maps showing artillery TRPs and locations of flanking units. Platoon is in assembly area.

#### Standards:

##### Platoon leader:

1. Assigns vehicles to specific positions with overlapping sectors of fire.
2. Makes arrangements for local security, including camouflage.
3. Arranges for resupply, feeding, and rest schedule.
4. Develops a tactical operational plan.
5. Develops an offensive fire plan.
6. Prepares and issues a complete OPORD covering the mission and fire plan.

Suggested Training Methods: The platoon assembles in the motor pool, on the tanks. The platoon leader is given a marked map and a mission. He is instructed to act as if the motor pool is an assembly area, and to take all the proper steps to prepare for an offensive mission. Tank positions can be

assigned from the map, and each TC can describe how he would set up his own assembly area position. Crews perform pre-fire checks and services on the tanks, and the platoon leader makes an inspection. All communications, radio or otherwise, are carried out using proper techniques to maintain security. Platoon leader develops his operational plan using the marked map and feedback from tank commanders.

#### Task 0-2: Occupy Defensive Position

Operational Requirements Covered: 9a

Related Functional Tasks: 1, 3, 4, 7

Conditions: Tank platoon in defensive area. Platoon leader receives mission to defend a particular area. Platoon leader is supplied with map showing artillery TRPs, location of flanking units.

#### Standards:

1. Platoon establishes security.
2. Within 30 minutes,
  - (a) Platoon leader issues OPORD and frag orders as necessary.
  - (b) Tanks occupy hull-down primary positions.
  - (c) Tanks select at least one alternate position.
  - (d) Tanks prepare range cards.
  - (e) Platoon leader plans tactical operations and prepares a platoon fire plan.
3. Platoon leader briefs platoon on target servicing and movement to subsequent positions.

Suggested Training Methods: This task can be practiced using a terrain board and tank models. The crews, other than TCs, need not be involved. TCs can describe how they would occupy their defensive positions. If a line-of-sight terrain model is used (Appendix B), the TCs can also make range cards. The range card procedure may also be practiced from the tanks themselves. All communications can take place using proper radio procedure, though no radio equipment need actually be present.

Trainers can develop other operational tasks covering any requirements which do not require fire or maneuver and outline training sessions which can be accomplished in a non-fire dry run environment. Realistic use of the method must be stressed. As in all simulations, it is important that trainees "play the roles" and practice all communications, plans, et cetera, as if they were actually in a combat situation.

Subcaliber Fire (Stationary). Actual target engagement and the parameters surrounding it may be practiced with subcaliber fire provided no movement is involved. Subcaliber fire stations make it possible for a tank crew to acquire, track, and fire on a target without firing main gun rounds or using large pieces of terrain. Targets may be engaged day or night, providing practice with passive sights or searchlights.

The most common subcaliber firing device, found at most home station training areas, is the Brewster device which coaxially mounts an M16 rifle with the tank main gun. The Brewster device is used in conjunction with a scaled target range (usually 1/60) which provides stationary, moving, and pop-up targets. Descriptions of subcaliber fire ranges are found in TC 17-12-6.

Functional tasks which may be practiced in a subcaliber fire environment include:

- . Give Oral Operational Report (F-9).
- . Direct Platoon Fires (F-10).
- . Call and Coordinate Supporting Indirect Fires (F-11).
- . Acquire Targets; Decide Whether to Engage or Hand-Off (F-12).
- . Sense Rounds for Another Tank (F-13).

These tasks are covered under the section entitled Functional Tasks beginning on Page 14.

Operational requirements necessary to the Table IX Platoon Battle Run which may be practiced at a subcaliber fire station include Requirements 1a & b, 2, 3a-f, 5, 7, 8, and 9a & b from Appendix A. Listed here are three sample operational tasks covering some of these requirements, and suggestions on how to use a subcaliber fire station to train on these tasks.

#### Task 0-3. Engage Threat Tank Company Under Indirect Illumination

Operational Requirements Covered: 1a, 2, 3a, 8b

Related Functional Tasks: 9, 10, 11, 12

Conditions: Platoon is in defensive position at night. FIST team with illumination rounds is available. Platoon leader has a complete fire plan. Platoon leader is notified of enemy activity in the platoon's sector of fire. After illumination begins, platoon is presented with ten tank targets at ranges of 800-1200m. Targets remain up for 60 seconds.

#### Standards:

1. Platoon leader sends complete and accurate call for illumination fire.
2. Platoon leader adjusts illumination as necessary.
3. At least nine tank targets are hit/killed.
4. Each tank sends a complete and accurate engagement report to platoon leader.
5. Platoon leader directs fire when necessary.

Suggested Training Methods: Illumination can be provided by mounting small spotlights on the mini-tank range tower. These spotlights are switched on in response to the platoon leader's accurate call for illumination fire. If the platoon leader assigns sectors of fire within the mini-tank range for

each of his tanks, he can direct fires of the platoon on the mini-tank range. Crews can sense the strike of rounds and adjust accordingly. After an engagement is completed, tank commanders use the tactical radio to send engagement reports to the platoon leader.

Task 0-4. Prepare Sector with Artillery Fire, Engage Threat Tanks.

Operational Requirements Covered: 1a, 2, 3a, 3b, 4a

Related Functional Tasks: 3, 9, 10, 11, 12, 13

Conditions: Platoon leader is given: A map with TRPS plotted, FIST support. After artillery fire is completed, one threat tank target per tank is presented. Targets are at ranges of 800-1200m and remain visible for 40 seconds. Forty seconds after targets go down, nine more threat tank targets are presented at ranges of 1200-1600m. Targets remain visible for 40 seconds.

Standards:

1. Platoon leader sends complete and accurate call for fire.
2. At least 12 targets are hit/killed.
3. Each crew sends a complete and accurate engagement report to platoon leader after each engagement.
4. Platoon leader directs fire when necessary.

Suggested Training Methods: The platoon leader can send a complete call for fire to the mini-tank range control tower, which acts as the FIST team. When he sends word to terminate the IF mission, the evaluator presents the first set of targets. Rounds can be sensed and adjustment made to insure destruction of the targets. Crews receive practice in multiple target engagements by receiving another set of targets after the first goes down. They should not be warned that more targets will appear; this will foster crew vigilance.

Task 0-5. Engage Two Threat Tank Companies

Operational Requirements Covered: 1a, 2, 3a, 3b, 9b

Related Functional Tasks: 3, 8, 9, 10, 12

Conditions: Platoon is stationary and on-line. Platoon is presented with five tank targets at ranges of 800-1200m. Targets remain visible for forty seconds. Forty seconds after disappearance of targets, platoon is presented with ten more tank targets at ranges of 1200-1600m. Targets remain visible for forty seconds. Forty seconds after disappearance of second set of targets, platoon is presented with ten more tank targets. Targets remain visible for forty seconds.

Standards:

1. At least seventeen of the twenty targets are hit/killed.
2. Crews make complete and accurate reports of each engagement to platoon leader.
3. Platoon leader directs fire when necessary.

**Suggested Training Methods:** Since this task is designed to teach platoons to rapidly engage "waves" of enemy targets, (a chain engagement), platoons should not be informed of how many targets will appear, or how often. During each wave of targets, crews sense their own rounds and adjust their engagements as necessary. When the platoon receives multiple targets in each sector, the TCs will have to determine the priority of fire for the targets. The trainer should insure one of the two targets in each tank's sector is clearly more 'dangerous' than the other. TCs should use proper communications techniques to make engagement reports to the platoon leader.

**Task 0-6. Engage Multiple Threat Targets, Hand Off and Sense for Firing Tank.**

**Operational Requirements Covered:** 1a, 2, 3b

**Related Functional Tasks:** 9, 12, 13

**Conditions:** Platoon is stationary and on-line. Platoon is presented with three targets at 1200-1600m appearing in only two of the five tank sectors of fire but visible to all tanks. Targets remain visible for 40 seconds.

**Standards:**

1. Crews which cannot engage targets hand off targets to those two tanks in whose sectors of fire the targets appear.
2. Non-firing crews report sensing of rounds to firing crews.
3. All three targets are hit/killed.

**Suggested Training Methods:** Each of the five tanks occupying the subcaliber fire range is assigned a sector of fire. If these sectors become too narrow, the task can be practiced by sections. The targets must appear in only one tank sector per section. This requires practice on deciding whether a target should be engaged, using proper communications to hand off targets to the firing tank, and reporting sensing to the firing tank.

The trainer can formulate a variety of tasks combining target acquisition and engagement, coordination of supporting fires, reports, and other operational tasks that can be performed without maneuver on the subcaliber range. Although training time on the range must be scheduled, and subcaliber devices and ammunition must be procured, a subcaliber range does not require much terrain and therefore can be utilized at home station. The trainer should insure the platoon is well-rehearsed on all functional and operational tasks that can be practiced in a non-fire dry run environment before using the subcaliber fire (stationary) method of training. This minimizes the benefit which can be received during the time allotted for subcaliber fire.

**Simulated Fire and Maneuver.** A simulated fire and maneuver exercise is one in which platoons maneuver over areas of real terrain, acquiring targets and sumulating fire upon them. Although no live rounds may be fired during simulated fire and maneuver, there are two methods which may be used to simulate firing, thus making the engagement more realistic. The first method is

to mount an M55 laser on the main gun, using the Brewster mounting device. The laser is available at some training areas and, since there are no safety restrictions governing its use, it should be utilized if possible. However, the targets which may be effectively fired using a laser must usually be fairly large and include a sizeable background panel to permit sensing of "misses". This means the maneuver area must be rather large, and the acquisition of the targets is rather unrealistic due to the highly visible background on which the targets are mounted.

Another aid platoons may use to practice fire and maneuver on a smaller scale range, is the REALTRAIN bore-mounted telescope used during REALTRAIN exercises. There are several advantages to this method. One is that the whole crew may be employed meaningfully during the exercise, because the loader can "sense" the gunner's rounds by checking the accuracy of his lay whenever he simulates fire. A second advantage is that the maneuver field can be quite small - as small as 1/5 scale - and still permit meaningful maneuver and engagement. At 1/5 scale, the depth of the maneuver field can be less than a kilometer, and tanks can be spaced fairly closely (20 yards apart). Of course, the larger the maneuver area, the better - but the fact that a particular local training area has very limited maneuver space should not entirely preclude platoon simulated fire and maneuver practice.

All the functional tasks may be practiced in a simulated fire and maneuver area. Those which are more specifically associated with maneuver, however, are:

- . Give Oral Operational Report (F-9)
- . Formulate Offensive Fire Plan (F-5)
- . Direct Platoon Fires (F-10)
- . Control Platoon Tactical Movements (F-8)
- . Call and Coordinate Supporting Indirect Fires (F-11)
- . Acquire Targets, Decide Whether to Engage or Hand-Off (F-12)

These tasks are covered under the section entitled Functional Tasks beginning on page 5.

All the operational requirements necessary to the Table IX Platoon Battle Run may be practiced during simulated fire and maneuver. Listed below are four sample tasks which definitely benefit from the use of a simulated fire and maneuver situation, and suggestions for training on each.

Task 0-7. Engage Threat Tank Company, Move to New Fighting Position, Engage Machine Gun Targets.

Operational Requirements Covered: 1a, 1b, 2, 3a, 3b, 3c, 3e, 3f, 6.



Related Functional Tasks: 3, 8, 9, 10, 12, 13

Conditions: Platoon is stationary and on-line. Platoon is presented with ten tank targets: four at ranges of 800-1200 meters, three at ranges of 1200-1600 meters, and three at ranges of 1600-2000 meters. Targets remain visible for 40 seconds. Immediately after targets disappear, platoon leader receives order to move forward one phase line. As each tank begins to move, it is presented with one troop target at ranges of 500-900 meters and one truck target at a range of 1000-1600m.

Standards:

1. At least nine main gun targets are hit/killed.
2. Platoon leader formulates and delivers movement plan, and supplements it with frag orders where necessary.
3. Machine gun targets are engaged while tanks are moving in non-stabilized mode.
4. At least 4/5 of troop targets are covered.
5. All cal.50 targets are hit.
6. Crews send engagement reports to platoon leaders.
7. Platoon leader directs fire on targets when necessary.
8. Each tank sends position report to platoon leader as it reaches new phase line.

Suggested Training Methods: The maneuver area needed for this task is simply a series of five parallel lanes marked off in phase lines. The platoon takes up positions at the first phase line and the first ten targets are presented. Since they are scaled targets, the ranges can be scaled accordingly. For instance, if the targets are 1/5 scale, then four would be located between 160 and 250 meters, three at 250 and to 320 meters, and three between 320 and 400 meters. They may be raised by hand using pull wires, or SAAB target devices may be used. The crews acquire the targets, TCs send complete fire commands, gunners lay on the targets and simulate firing. The loader, meanwhile, watches the target through a REALTRAIN telescope mounted in the main gun tube. If the gunner is correctly laid on target when he simulates firing, the loader senses "Hit". If the gunner's sight picture is off, the loader calls off the proper sensing, such as "Short". When all targets are engaged the TCs make engagement reports.

Immediately after the first engagement, the platoon leader is given an order to move to the next phase line. He formulates and delivers a movement order and controls platoon movement. As soon as the tanks begin to move, the next targets are presented; the crews must engage them while moving. No sensing can be done on the simulated machine gun fire, but the TC and gunner should work together to perfect machine gun engagement techniques.

Task 0-8. Engage Enemy Tanks, Delay Under Cover of Smoke.

Operational Requirements Covered: 1a, 2, 3a, 3b, 3c, 7

Related Functional Tasks: 3, 8, 9, 10, 12

Conditions: Platoon is stationary and at farthest phase line. Platoon is presented with ten targets; four at ranges of 800-1200m, three at ranges of 1200-1600m, and three at ranges of 1600-2000m. Targets remain visible for 40 seconds. Immediately after targets go down platoon leader receives order to delay back one phase line under heavy pressure. Tanks are equipped with smoke grenades.

Standards:

1. Platoon leader directs fires as necessary.
2. At least nine targets are hit/killed.
3. Crews report engagements to platoon leader.
4. Platoon leader gives movement and smoke order to platoon.
5. Platoon fires smoke screen by section or platoon salvo.
6. Platoon delays to next phase line.

Suggested Training Methods: In this task the platoon must delay rather than advancing. Engagement and sensing of rounds are accomplished as in the two previous tasks of this section. The platoon leader can practice his maneuver control and will give a smoke order. The TCs can 'fire' smoke by giving the proper fire command and then throwing a training smoke grenade while the crew simulates the procedures involved in actually firing smoke.

Task 0-9. Engage Threat Tanks Under NBC Conditions, React to Friendly Air Support.

Operational Requirements Covered: 1a, 2, 3b, 3c, 4c, 5

Related Functional Tasks: 3, 8, 9, 10, 12

Conditions: Platoon is stationary and on-line. Platoon leader is informed of gas attack. (TBD) seconds later platoon is presented with ten tank targets: five at ranges of 1200-1600m and five at ranges of 1600-2000m. Targets remain visible for 40 seconds. Immediately after targets go down, platoon leader is informed of approaching friendly air support, and is instructed to delay back one phase line, and to mark flanks with smoke.

Standards:

1. Crews mask and button up within (TBD) seconds.
2. At least nine targets are hit/killed.
3. Crews report engagements to platoon leader.
4. Platoon leader gives movement and smoke order to platoon; platoon marks flanks.
5. Platoon delays to next phase line.
6. Platoon remains masked against NBC during entire engagement sequence.
7. Platoon leader directs fire when necessary.

**Suggested Training Methods:** This is another delaying task, but it differs from the above task in two parameters: it is conducted under simulated NBC conditions, and the platoon must react to the presence of air support. The NBC condition should be familiar to all crews. The threat can be presented by an evaluator tossing a colored smoke grenade, and the detecting crew then spreads the alarm to other crews. The target engagement can be sensed by the loader as before. The platoon leader must inform the platoon of impending friendly air support and direct its movement back one phase line. Crews in the flanking tanks will simulate firing smoke as before, except that either an evaluator will have to throw the training smoke grenades to mark the flanks, or there will be no actual smoke, since the tank hatches will be sealed and the TC will be unable to throw the smoke.

**Task 0-10. Attack and Consolidate on Objective.**

**Operational Requirements Covered:** 1a, 2, 3a & b, 6, 9b & c

**Related Functional Tasks:** 3, 5, 6, 8, 9, 12

**Conditions:** Platoon is stationary and on line at last phase line before objective. Platoon leader receives mission to attack and consolidate on objective, moving by bounds. Each section, upon beginning bound, is presented with five targets at a range of 1200-1600m. As soon as all tanks arrive at objective, platoon is presented with five targets at ranges of 800-1200m.

**Standards:**

1. Platoon leader develops assault plan and issues complete OPORD.
2. Platoon leader controls maneuver by bounds.
3. At least nine targets are hit/killed.
4. Platoon leader directs consolidation and reorganization on objective.
5. Tanks report engagements and completion of bounds to platoon leader.

**Suggested Training Methods:** Target engagements and sensing of rounds can be accomplished as in previous tasks. The trainer can play the part of the company and support elements, so that the platoon leader can practice calling for resupply, maintenance, et cetera.

Other operational tasks requiring simulated fire and maneuver can be developed by the trainer. Although methods have been presented whereby the trainer may effectively make use of very limited resources, he should use whatever resources are available to make all training as realistic as possible. Careful scheduling of time and pre-training using simpler resources will maximize the benefit derived from the platoon's maneuver time.

## Appendix A

### Operational Requirements for Table IX Platoon Battle Run (Day/Night Combination)

1. Number of Targets. (Functional Tasks 12, 13)
  - a. Minimum of 50 main gun targets per platoon.
  - b. Minimum of two coax troop and two .50 cal. truck targets per tank.
2. Presentation of Targets: Targets will be presented in groups of 3-10 targets. (Functional Tasks 10, 12, 13)
3. Ranges of Targets. (Functional Tasks 12, 13)
  - a. 30% of main gun engagements have tank-target range of 800-1200m.
  - b. 30% of main gun engagements have tank-target range of 1200-1600m.
  - c. 10% of main gun engagements have tank-target range of 1600-2000m.
  - d. 30% of main gun engagements have tank-target range of BN CDR's choice.
  - e. All cal. 50 targets are at ranges of 1000-1600m.
  - f. All troop targets are at ranges of 500-900m.
4. Supporting Fires. (Functional Task 11)
  - a. Two field artillery missions (one must be adjusted).
  - b. Two mortar fire missions.
  - c. One platoon per company receives air support consisting of one TOW-Cobra indirect 2.75" FFAR fire mission, one TOW-Cobra TOW engagement at moving tank target, one A-10 live fire engagement of one armored vehicle target array.
5. NBC: One main gun engagement on each platoon battle run will be NBC, hatches closed.
6. Firing on Move: Each tank will fire a minimum of two main gun targets per battle run on the move (stabilized). (Functional Task 8)
7. Smoke: Each tank will fire a minimum of twelve (M60A1) or eight (M60A2) smoke ejection grenades per battle run. This task will be done by section or platoon salvo. (Functional Task 10)
8. Night Illumination: Following order of priority:
  - a. No illumination - thermal or I<sup>2</sup> passive sights.
  - b. Indirect mortar or artillery illumination (Functional Task 11).
  - c. Infrared searchlight - IR sights.
  - d. Indirect white searchlight - any sight, but IR or passive sights preferred.
  3. Direct white searchlight - telescope as daylight periscope. Units may not use direct searchlight techniques unless I<sup>2</sup> passive sights or ammunition for indirect illumination fire are not available.

Appendix A (Continued)

9. Tactics:

- a. Platoon must take advantage of support. (Functional Tasks 1, 3, 4, 5, 7)
- b. Report promptly and completely to company/team commander. (Functional Task 9)
- c. Resupply and maintain expeditiously and effectively. (Functional Tasks 1, 2, 3, 6)

## Appendix B

### Modified Terrain Model/Sand Table for Use in Training/Evaluating Target Acquisition Skills

The speedy acquisition and recognition of targets is an important tank gunnery skill which is often difficult to practice at local training areas. Ideally, tanks should be situated in large areas of terrain and full-scale targets made to appear at ranges from 800-2000 meters so the crew can practice acquisition. If the logistics of operating such a large and complex acquisition range are beyond the scope of a battalion's local training area, a scaled mini-tank range can be used with some success to train target acquisition. Another training aid which can be used and requires very few resources - and no scheduling of range time - is a modified "line-of-sight" sand table or terrain model such as that described below.

The basic concept of the line-of-sight terrain model is that the trainee's field of view is reduced to a scale similar to that of the terrain model, thereby making visual information input from the terrain more realistic. By eliminating the bird's-eye view common to sand tables and terrain models, target acquisition and associated tasks can be meaningfully practiced in a very small area (a single room) and using very few resources.

Two types of small-scale terrain representations are available to a unit. The first is the rigid pre-formed terrain model board such as that used in Dunn-Kempf and other board games. The second is the sand table, which can be molded and re-molded to simulate differing sections of terrain. Part A below describes the modification of a rigid terrain model for line-of-sight use. Part B describes the modification required for a sand table.

## Part A. Modifying a Terrain Model for Line-of-Sight Use

Step 1. Raise Terrain Model to Eye Level. Using sawhorses or similar braces, elevate the terrain model so that the average height of the terrain features represented is 4'6" to 4'8" from the floor. This will cause the terrain level to appear at just below eye level for a seated individual. (See Figure B-1.)

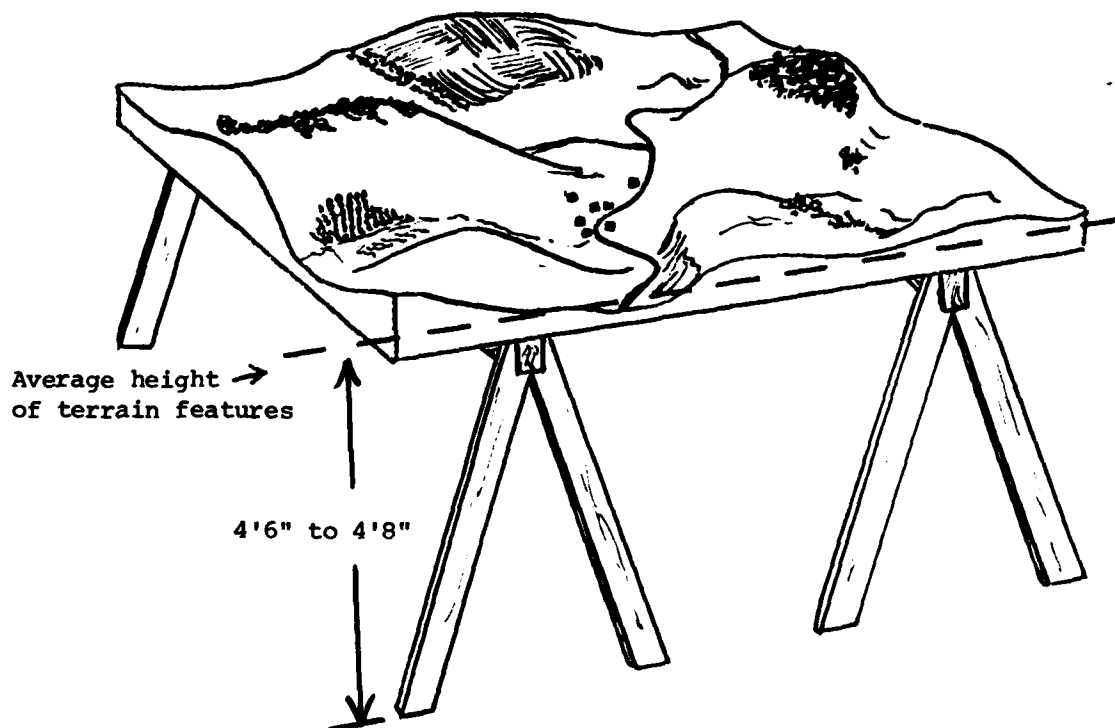


FIGURE B-1. ELEVATING TERRAIN MODEL

Step 2. Restrict Line of Sight.

(a) Fasten lightweight braces, such as 1 x 1 pieces of wood, to the four corners of the terrain model. Staple wide strips of cardboard between the supports so that they fit flat against three sides of the terrain board. (See Figure B-2.)

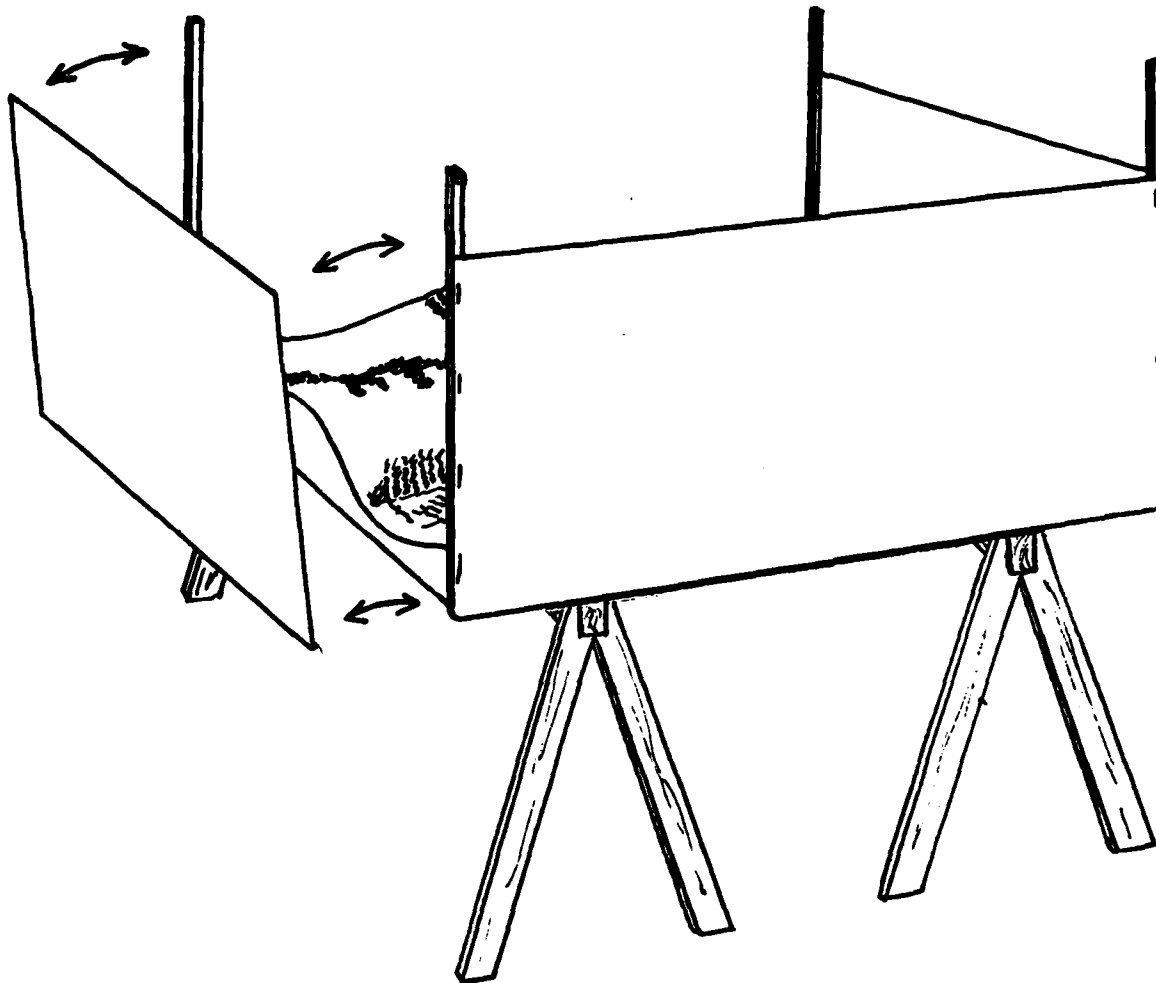


FIGURE B-2. MOUNTING CARDBOARD AROUND TERRAIN MODEL



(b) Trim the cardboard so that it follows the contours of the edge of the terrain model at a height of 2" from the edge. (See Figure B-3.) This creates a line-of-sight viewing space across the terrain model.

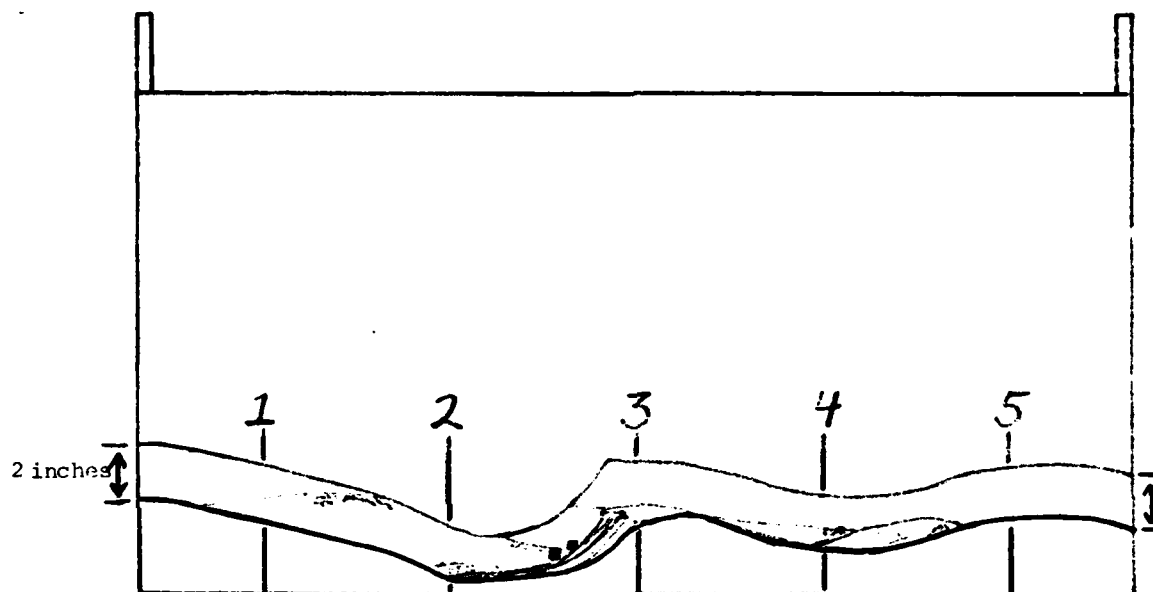


FIGURE B-3. TRIMMING CARDBOARD AND MARKING POSITIONS

**Step 3. Mark Viewing Positions.**

Using paint, mark and number several viewing positions around the perimeter of the terrain model. (Figure B-3) Trainees are seated in chairs at the viewing positions, and lean forward so they can see through the two-inch slot above the terrain features.

**Step 4. Add Visual Obstructions.**

Make the line of sight model more realistic by forming trees, bushes, and other visual obstructions from bits of green painted sponge, and gluing them in place.

**Step 5. Make Scale Model Targets.**

These are most easily made by drawing front and side panel tank, truck, BRDM, and troop targets with black ink on pieces of stiff paper. The models should be trimmed to shape, and a tab left at the base to fold back so they will stand up when placed on the terrain board (see Figure B-4). These will be very small. For instance, if a Dunn-Kempf terrain board with a scale of 1:285 is used, a tank frontal silhouette will be only 1/2" tall. Note: If Dunn-Kempf scale miniatures are available, use these.

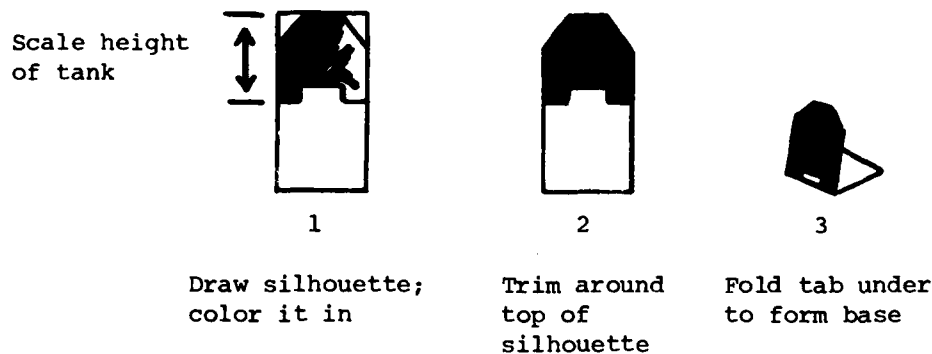


FIGURE B-4. MAKING SCALE - MODEL TARGETS

Part B. Modifying a Sand Table for Line-of-Sight Use.

Follow the steps listed above for modifying a terrain model, except that in Step 2(b), the cardboard will be trimmed to an even height of 2" above the sand table's edge. The trainer will be required to mold the sand terrain so that it slopes to an even edge on all sides (see Figure B-5). All other steps are the same.

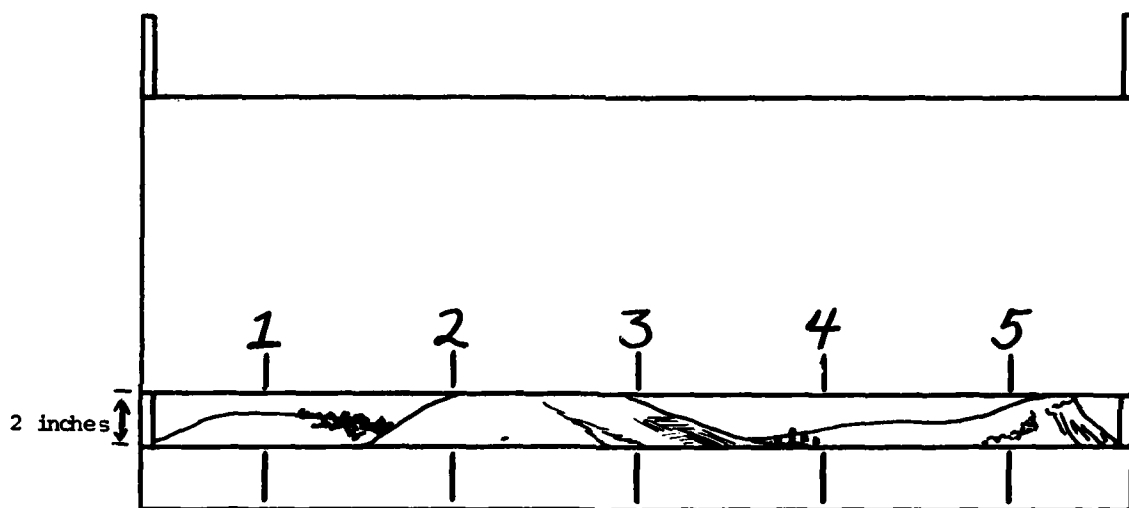


FIGURE B-5. TRIMMING CARDBOARD FOR A SAND TABLE

### Using the Modified Terrain Model

The completed line-of-sight terrain model can be easily operated by one evaluator/trainer. One or more trainees are seated at viewing positions around the three shielded sides of the model. They are shown how to lean forward so they are looking across the terrain model directly under the position number. The evaluator then instructs the trainees to sit back, which effectively blocks off the trainees' view of the table. While the trainees are in this position the evaluator arranges target models on the terrain board in whatever way he desires. He should, however, assure that each model can be seen from at least one position. At a given signal, trainees lean forward to the viewing positions and can then 'acquire' the target models.

This procedure can be used not only for target acquisition practice, but for practice in handing off targets or adjusting indirect fire. For target hand off, range cards must be made for each of the positions being used. For indirect fire adjustment, a map must be made which matches the terrain model/sand table, and marked with the reference points. The evaluator places small wads of paper or bits of cotton on the board to simulate artillery fire.

Trainees can even practice multiple-tank engagements and determining priority of fire. They can also give fire commands to the evaluator, who can use a pointer to knock down the designated target model, thus practicing fire commands.

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